

Issue 4 • Dec 3, 1988

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# NEW COMPUTER EXPRESS

First news, first reviews - every week



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EXCLUSIVE

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## Is this the best game this year?



First review - page 29

## CDI standard: the giants agree

A definitive standard for the much touted technology of tomorrow - Compact Disk Interactive - has at last been completed.

Philips and Sony, the companies that originated compact disks and CD-ROM, have shipped out their new technology to hardware manufacturers looking to make CD players as well as to prospective software writers interested in authoring applications for the machine.

It is hoped that CDI will be available to the general public before 1992. When machines appear they will "obviously be at consumer prices".

CDI will plug straight into a television and can be operated by mouse, keyboard or remote control. Its main uses will be as apparently sophisticated databases combining text, speech, audio and graphics. Possibilities exist for the machines to run games, although something like word processing is apparently not feasible.

These hardware manufacturers that already have the rights to original CD technology (i.e. more large electronics companies) will be able to claim out machines for no fee. Others though will have to pay Philips/Sony.

That does won't be launching a machine proper until a software base has developed. Amiga CD players of the future will be compatible with CDI software and vice versa.

Philips appears to be confident that the CDI standard will be accepted, given that CD itself was spurned the growing up pains of, say, video.

"This is a completely different product from anything else," commented a Philips spokesman. "It combines the personal computer, video and audio player."



All the best people read New Computer Express - and so do the best! This week, The New Leader (New York) was lauded at the recent Comdex. Since browsing through our pages for all the latest in hi-fi, Software America and other matters computers, Bruce has joined an Amiga fan for months now and used to catalogue his CD collection and many other CD things. Bruce's game is Interceptor and he plans to continue his account on the machine.

# £200 machine ups stakes in 16-bit war **SEGA CONSOLE WOWS THE JAPS**

Sega's stunning 16-bit console will cost £200 when it goes on sale here next September.

The new machine hit Japanese streets last week and initial batches of tens of thousands sold out within days. Express has laid its hands on what is believed to be the only such machine in the UK.

Despite previous talk of direct compatibility with existing Sega cartridges, the new deck will require for this an adapter costing around £20.

Contrary to false reports elsewhere in the press, the machine will be called the Megadrive and not Megadrive. A much quoted price point of £340 is clearly wide of the mark.

The machine is being called an 'Amiga and ST better suited off the back of its console like graphics. Its 64 colour screen has no margin and is capable of enormous sprays. The Megadrive comes with a curious kidney-shaped game controller.

And the sound capabilities closely follow those of an Amiga machine with three options - Programmed Sound Generator, Pulse Code Modulator and FM.

Cartridges will cost between £30 and £50. Those currently available in Japan include enhanced versions of Out Run, Afterburner and Space Harrier II. There are no plans for third party development of games. Sega operates a tightly controlled policy which excludes all publishers except those with licenses.

Sega's products are handled here by Virgin/Mastertronics. Boss Nick Alexander told Express: "At best it's very nearly a year away and if we do manage to get it out then it'll cost £200. We see it as a trade up in the sense. The biggest problem is that Sega are struggling to meet demand



• Megadrive, £200 next September

in Japan." In effect, Sega is concentrating on Japan before addressing the European market.

Alexander added that Sega's president Mr Matsuyama had ruled out any sub-£200 price. That said, September is currently a long way off and the whole market may be in a different state come the middle of next year, when a final pricing decision would have to be made.

Another possible delay is the problem of converting the console to the British PAL television standard.

Alexander rebutted the notion that this announcement will damage the existing 8-bit market. He said they would "sit side by side". "When news first came out of Japan we were not especially pleased. But when we learned that it was more than twice the price and the fact that it won't be here until September, we were less unhappy," he said.

Come next year 16-bit console shoppers will be given the choice between Sega's machine and Atari's console, which will be half the price.

## QL's emulator undercuts PCs!

A PC emulator for the Sinclair QL is to be launched early next year at under £100 turning the Sinclair theoretically the cheapest of all PCs.

Organized by Digital Spectrum it will be based with Version 4 of

Microsoft's MS-DOS. The firm is waiting for that to arrive.

Digital is quick to point out that the £100 emulator with a QL will make the machine the cheapest PC compatible on the market.

"It's going to be

incredibly fast," said boss Freddie Vache, "because the QL has to process it is something else." According to Vache the software based emulator will be able to handle all PC programs.

More info from Digital Spectrum on 01 527 5420.

## It's the open heart surgery simulator

Just when you thought that every broken idea for a computer game had been used along comes, of all things, a hospital simulator.

California publisher Software Toolworks has come up with the game which enables you to play surgeon. The firm

warns that it involves cutting through "living" flesh and dabbling with organs.

"You make Godlike decisions that determine whether your patient lives or dies," sayeth the blurb. Toolworks' Tim Dickenson denied that the game isn't entirely in

good taste. "Hey, we're not asking people to go around cutting bodies up," he explained from Sherman Oaks in California.

Electronic Arts will probably be publishing Life and Death in the UK some time in the new year.



• Life and Death: Godlike?

# Atari takes Stacey laptop in hand

## Job cuts hit Mediagenic

More evidence of problems for United States software houses emerged last week with Mediagenic laying off 30 of its staff.

The firm is blaming the cutback on a sagging of the home leisure industry in the States. Computer games and toys in general are suffering, claims Mediagenic. This news comes quick on the heels of disappointing financial results posted earlier in the month. Second quarter profits slipped from \$1.5 million to \$200,000.

The personnel laid off in California represent 11 per cent of the company's staff worldwide. Other US companies experiencing problems include Midrange, which posted a quarterly loss of \$100,000, and EA which has had to close down its Japanese office (Computer News 3).

UK news from Comshare said: "We just cannot profit but thought it would be prudent to carry this out. The entire management team is depressed in the States. This carries on consolidation. We know that while Mediagenic US is experiencing cut backs the UK arm is still recruiting."

Atari designers and technical supremos have been given the task of completing the £700 ST laptop Stacey by March.

Although the circuit board is up and running, the casing has yet even to be agreed upon. At Comshare two weeks ago a polycarbonate model was on display but that is said to be some way off the desired final result.

One problem is the trackball which has been ditched in to replace a mouse. Current thinking puts the ball in the right hand corner of the machine - this though would cause problems for that 15 per cent of the population which is left handed.

Speaking at the Atari Show last Friday the firm's boss Bob Glodrow told Express: "There's the possibility of a delay because we haven't got the casing yet but the circuit board is ready. All the problems will be ironed out by the international launch at Hanover in March."

Atari is also working on the possibility of expanding power capabilities. Stacey is currently battery powered only, with a life of six hours. However, it is being suggested that an Amstrad PPC solution be brought on - that of running the machine off a car cigarette lighter. "We're also looking at different standards for the battery cells," offered technical director Les Player.

The case itself is being designed by Ira Velickson who is responsible for all the ST range's cases. Here's a perfectionist, added Player. He estimated that Stacey would weight roughly the same as a 1040's case unit.



Glodrow: Possible case delay

### Stacey tech spec

**Price:** £695  
**Launch:** International unveiling at the Hanover Messe in March. It should be in the UK later in the spring.  
**Drive:** 3.5 inch floppy - exactly the same as the ST.  
**Screen:** 640 x 480 LCD pixel super-twist.  
**Memory:** 1Mbyte of RAM.  
**Weight:** About the same as the 1040ST.  
**Power:** Battery power, possibly car cigarette lighter and mains power supply.

For more see page 10.

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## PC SHOW 88: Who went and why

Factoid breaks and on. Here are all the squibby bits and bobs to emerge from the PC Show which occurred all that time ago. Well, September at any rate.

It would appear that there were 99,000 visitors of whom 38 per cent made a beeline for the leisure hall and were interested only in what goodness were lurking behind the Amstrad stands. A few less, 34 per cent, headed for the sober business hall and kept a good distance from the gaming fraternity.

Gamblers will realise that the other 30 per cent were there to seek up the lot and floated around all the halls.

More than 30 per cent of the visitors didn't have a computer and were seri-

ously thinking of buying one for personal use.

The suit clad mob included some 45,000 businesses looking to buy a machine over the next twelve months.

Next year's event runs from September 27th to October 1st. (That's quite enough facts - ed).



• PCS '88: It figures

## Shoot from the Lip... the week's most quotable sayings

"Now, Dudes, that's the principle. We're absolutely pleased ourselves right the way back so that we can flower again."

CRL's boss Clement "Greenfingers" Chambers on the right way to save a company.

"Yes, last year we said it would take two years for us to make a big impact on the PC market. But now you have to

start those two years from this October because that's when we had proper availability of machines."

An exercise in moving the postposits courtesy of Saxon's John Colter.

After I've finished Fright Night, I'll either start up a software development house or buy an ice cream van."

Programmer Steve Rak putting his plans on ice - either way.

## OUR OPINION

### Computer firms: console yourselves

Even by the standards of the hype-obsessed computer market, the new Sega console really is quite extraordinary. It hasn't been lucky enough to get our hands on one and our exclusive report begins on page 8. Judge for yourself the quality of the graphics. Believe me the Amiga is an understatement - particularly when you see these graphics in action.

The true sadness is that it won't be available until next September at the absolute earliest. For that, blame the excessive demand from the Japanese. (We could also say by lobbying Virgin Mastercard, though that's unlikely to have much effect.) But when it comes, just what will it mean for the keyboard-based games machine?

One view says that the Sega Megadrive will simply wipe the floor with their 16-bit computer counterparts - to say nothing of their effect on those old dinosaurs the Spectrum and 64. If people only want to play games then give them a games-only machine.

But it isn't quite that simple. Even if the main motivation is games, most people still hope that their machines can do something more than just blast aliens to oblivion. Certainly that's true when it comes to parents, who still nurture beliefs that computers are "useful" for their kids.

For now the new Sega will do exceptionally well. But its success will be more like the Amstrad Effect, where a new market is created in addition to - rather than as a replacement for - the existing one. Reports of the death of keyboard games computing have, as ever, been greatly exaggerated.

## Simply dishonest

Legal niceties prevent us from commenting in detail upon the row that has broken out between Matrix and Computer User (see page 5). All that we can say is that Express has a clear policy of not being directly critical of a pre-production version of a new title without pointing out that it is incomplete.

Other publications - and we're not talking about CJI - appear willing to dress up any pre-pro version as a full release, so that they can trumpet having an exclusive. Such practices are quite simply dishonest. Ultimately, they're no good for the partner, no good for the software house and in time - God willing - no good for the magazines concerned.

### Training blues

According to training firm Compateach companies using micros complain that their biggest recruitment problem is finding computer literate personnel. Yet 20 per cent of these companies don't even train their own staff.

And of those that do, 40 per cent only take an one or two training.

Compateach runs a series of training courses aimed solving the computer illiteracy problem.

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# KIDS ADDICTED TO NAZI HORROR GAMES

West German computer addicts are playing disturbing Nazi games which include anti-Semitic references in a sick new craze sweeping the country.

The illegal disks are being circulated by underground Nazi groups and picked up by home computer users. The games include on-screen swastikas, and players are urged to conquer the world for the Aryans once and forever holocausts, concentration camps and extermination.

Many well-received games produced here and in the US are banned from Germany, including combat simulations from the likes of MicroProse. But the Nazi titles are being produced in Germany itself and the Government is having difficulties cracking down on distributors.

Parents are being urged to keep an eye on what their children are playing. The games are being aimed specifically at the 12 to 16 year old age group and are apparently the height of fashion amongst young computer freaks.

Two games have been singled out as being particularly offensive. Clean Up Germany urges gamesters

to kill enemies of the wire to the sound of Deutschland über Alles. And The Aryan Test requires talking as Nazis. Disturbingly, players are graded from being a "scratched Jew"

to an SS officer.

This is happening in a climate of increasing violence on West German streets against immigrants and a surge in Nazi activity.

## Multi-nationals panic at computer fraud surge

Huge financial institutions are investing larger and larger amounts of money into protecting their PCs as the threat from computer fraudsters and hackers grows ever more.

Last week, multi-national financials Merrill Lynch spent the first \$200,000 of a potential \$1 million investment on securing its network of PCs. The firm, like many sensitive institutions, has been reviewing its security systems recently and has found them wanting.

One security industry source told Express that Government defence and intelligence agencies are experiencing a new surge in panic as more stories of computer fraud and hacking come to light. Many reason that for

every plan which is foiled, there lurks many more which remains undetected until it is too late, if at all.

"You don't hear about this because companies and agencies don't want their security plans known," commented Louis Oley of security firm Microsys. "But there has been widespread analysis over the past two years within firms like Merrill Lynch. They are prepared to spend a million because it potentially saves many times that."

Such is Merrill Lynch's angst about being caught unaware that it has bought a substantial stake in Microsys. Thus, the unusual step of revealing security details was taken.

## Anco boobs again

Page three babe Maria Whitaker has once again popped up in a computer game.

This time Anco, purveyor of the squalid Strip Poker series, has signed up the buxom beauty. Amiga, ST and PC owners will soon be able to try their hand against the tablets' starlet.

Express is informed that the clings of the game - called Maria's Christmas Box - involves a G-string. Whitaker was the centre of a cleverly masterminded pantomical storm of disapproval when she appeared in ads promoting Palace's Barbican game. At the time, at least one publication decided to cover up her most revealing assets.



\* Whitaker: Computer starlet

## Art for Arc's sake

Claris Micro Supplies has just released its ProArts package for the Archimedes.

ProArts - the sequel to Artisan - works in Mode 15 and is claimed to make full use of the 256 available colours. Besides sporting all the usual facilities provided by low-end home graphics packages, ProArts features graduated fill manipulators, true cut and paste sprite scaling as well as Bezier curves for freehand drawing and air-brushing.

Perhaps the package's most powerful feature is its ability to designate full screens as complete sprites and distort it into a square in less than two seconds. This kind of manipulation, plus the ability to compress screen files by up to 40 per cent, is being praised by Claris as a good reason to switch those in the Archimedes brigade with £169.95 to Claris. Tel: 0506 48511.

### • ProArts: Manipulator



## For 2 points: Does this face look anything like Ian Botham?

A little problem with Endy Hughes had soft-warrior Endy as a used game last week as it attempted to get A Game of Sport set onto the streets.

The game is a month late and last-minute changes have meant that three other games - Storm, Warrior, Wielder and Supertrax won't be out

until some time next year.

The problem with A Game of Sport came when squawking parent Endy Hughes was replaced by Ian Botham in the TV game show. Endy had to gain Botham's permission to use his likeness in computer form and then had to replace the digitized Hughes. Sundry bugs have also

been cropping up.

"We had to get a license now this out before Christmas and so the other games have had to wait. The people have been working non-stop to get it out," said Endy Jill Botham.

Game of Sport was due for release in October. Endy now plans for all computer versions to be



\* Hughes: Endy's headache

available from this weekend.

## GAMES TOP TWENTY

## FULL PRICE

1	Double Dragon	£19.99	WEBSURFERS
	Sierra On-Line		
2	Last Ninja 2	£19.99	
	Sierra On-Line CPC		
3	Return Of The Jedi	£19.99	WEBSURFERS
	Sierra On-Line ST CPC		
4	Football Manager 2	£19.99	
	Sierra On-Line ST Amiga PC CPC		
5	Pacmania	£14.99	
	Sierra On-Line CPC		
6	Cat Run	£14.99	WEBSURFERS
	Sierra On-Line ST CPC Amiga		
7	Dale Thompson's Olympia	£19.99	
	Sierra On-Line ST Amiga CPC		
8	Tato Cain-spa	£14.99	
	Sierra On-Line CPC		
9	Game Set and Match 2	£19.99	
	Sierra On-Line CPC		
10	Supreme Challenge	£19.99	WEBSURFERS
	Sierra On-Line CPC		
11	R-Type	£19.99	WEBSURFERS
	Siemens CPC		
12	Meteorburner	£14.99	WEBSURFERS
	Siemens CPC		
13	Elite	£19.99	WEBSURFERS
	Siemens CPC BBC Electron PC MDX CPC		
14	Endy Hughes' Int. Soccer	£19.99	WEBSURFERS
	Siemens CPC		
15	Track Suit Manager	£19.99	WEBSURFERS
	Siemens CPC CPC		
16	Antarctic Ranger	£19.99	WEBSURFERS
	Siemens CPC		
17	Lombard RAC Rally	£19.99	WEBSURFERS
	Siemens CPC		
18	Starglider 2	£19.99	WEBSURFERS
	Siemens CPC		
19	Gold Silver And Bronze	£19.99	WEBSURFERS
	Siemens CPC CPC		
20	Armageddon	£19.99	WEBSURFERS
	Siemens CPC		

## GAMES TOP TEN

## BUDGET

1	Joe Blah 2	£14.99	WEBSURFERS
	Siemens CPC BBC Electron CPC		
2	Bromo Jack	£19.99	WEBSURFERS
	Siemens CPC CPC ST Amiga		
3	Commando	£19.99	WEBSURFERS
	Siemens CPC BBC Electron CPC		
4	Footballer Of The Year	£19.99	WEBSURFERS
	Siemens CPC BBC Electron CPC MSX CPC		
5	Advanced Pebble Simulator	£19.99	WEBSURFERS
	Siemens CPC		
6	Combat Lycan	£19.99	WEBSURFERS
	Siemens CPC BBC Electron		
7	International Rugby Simulator	£19.99	WEBSURFERS
	Siemens CPC		
8	Storm Bike Simulator	£19.99	WEBSURFERS
	Siemens CPC CPC		
9	KIA Street 2	£19.99	WEBSURFERS
	Siemens CPC CPC		
10	End Zone	£19.99	WEBSURFERS
	Siemens CPC CPC		

## COMPLETED BY GALLUP

WEBSURFERS: Amiga, BBC Electron, CPC, MSX, ST, Siemens CPC, Spectrum, ST, Vixen, Z80.

## Atari's mega bucks trauma

Atari continues to be dogged by the bad performance of its chain of American shops called Federated.

Through computer sales are increasing Federated is losing the company nearly £1 million a month. Atari - owned by Commodore's former boss Jack Tramiel - made a profit of only £900,000 for the three months up to the beginning of October. That is down 9% per cent on the corresponding period in 1987. Such a shortfall is likely to hamper Atari's ambitious plans across the board for computing next year.

In contrast, with rival Commodore is enjoying profit increases of 10% per cent brought about by moves up market and internal re-organisation.

Sales of Atari computers increased by 20 per cent during the period, although even here profits were down 20 per cent. Atari, once again, blamed D-Ram price and shortages for "negatively impacting" profits.

## Kids' mega GCSE trauma

Young IT owners hoping for a good blast-off as a Christmas present could be in for a nasty surprise from educational software house Adamssoft.

The firm is about to let loose GCSE Higher Maths in the hope that parents will consider it a more valuable use for the machine than collecting spending so much time on. Adamssoft takes it as read that students themselves won't be fucking out for the £25 program.

"It's difficult to get parents to use educational programs instead of playing games," observed boss David Tomlinson. "But the parents will buy them."

The program was written by a teacher, and Adamssoft reckons it'll give students a better chance of passing their GCSE Maths exam come the summer. More details at 0796 524304.

## Amstrad climbing

The Financial Times may have brought a smile to Mr Alan Sugar's normally stern face last week.

In the esteemed publication's annual Top 500 Biggest Firms corporate chart, the Amstrad web had moved up from number 213 to 170, in the process taking over such notable names as Heinkel and Rolo Royce.

However, a look up the height heights reveal that Europe's number one computer company is still Olivetti at 81, despite a dip from number 63.

# FURIOUS MARTECH



# TAKES MAG TO COURT

An angry legal battle has broken out between games publisher MarTech and the magazine Commodore User. The row could have a knock-on effect on the way magazines review software.

MarTech is livid because Commodore User has stated its new game Phantom Fighter - allegedly without reviewing it - incomplete version. The software house says it only sent editor Mike Patterson a pre-production demo of previous versions. The firm claims that this fact was mentioned to Patterson.

Last week MarTech took the magazine to the High Court in The Strand with the aim of obtaining an injunction to prevent distribution of the magazine. The judge was said to have been sympathetic but due to

the extraordinary costs of putting a ring the injunction was refused. MarTech is now set to sue CU's publishers EMAP.

"We're as sick as pigs about that," raged MarTech's boss David Martin. "It's a fundamental breach of trust that you have to have with the magazine. The game was clearly a demo. When they asked if it was reviewable we told them it wasn't."

I can only guess that Mr Patterson was trying to be clever. We won't be revealing anything to Commodore User while he is editor."

He went on: "This will have relevance to every software house that needs our license to magazines. We need to feel comfortable about sending these things out." He added that Phantom Fighter has been received

well by all other magazines including CU's sister paper The One, which reviewed the completed version. Aspects of the game which Patterson had scored, said Martin, had been copied out.

What has upset Martin even more is that the game was programmed by an Irish development house, Enniskillen, which he set up in conjunction with the Irish Government. "This was Enniskillen's first venture and we wanted to show everyone what a great game it is. They will be extremely angry with this."

Patterson post-blast refused to comment on the matter. Instead, EMAP as a whole is currently preferring to remain tight-lipped.

## Dixons doing the business



- Dixons: Beating the buntlers?

High street chain store Dixons has opened up its first business computers only store in Leicester.

The multiple retailer reckons businessmen have hitherto been served badly when it comes to electronic office equipment. The business centre stocks "everything from the PS/2 range to a desktop fax machine".

And the firm claims that it will be installing staff who know what they're talking about. The high street computer stores in general are notorious for bumbling sales assistants. Dixons personnel promise to pay customers visits when problems occur. Other business stores are set to follow.



• Handset a award-winning and fairly sedentary adventure. Corruption has been modified for the Mac with a price tag of £24.95. It's also available on the Amiga at £24.95. Handset can be contacted on 01-631 5270.



• Game Electronics is launching this "sophisticated" action game program for the ST at £25.

Freestyle can dump a whole screen, like a small part of it only, or magnify or reduce specific parts of the screen. The firm says it'll produce paid prices at least the most complex game. Freestyle works on Epson-compatible printers. More info on 0823 672302.

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shopping days to go...

The last thing most people want to start thinking about is Christmas 1989 but the software houses already have their eye on the games which might be taking us into the next decade. Activision's US supplier Kid Connection reckons it's time to team up with Pole Position. Putting the biggest digital, the biggs, will be Ocean with Chase HQ.

## Snippets

### Refreshing ribbons

For those people who dislike buying a new printer ribbon every couple of months consider Refresh.

The 16 aerosol will, according to Chapel Computer Services, change an old faded ribbon into a sparkling new shiny one. And it can perform this feat "over and over again".

### Money for old sticks

JoySticks aren't the most resilient of creatures, as any gamer will tell you - and replacing them can be a costly business.

With this in mind Letchworth-based Rockwell Designs has come up with a scheme to revolutionise just waggles. The company will take in any faulty stick and immediately replace it with a fully working model. Then, it will take apart the broken joystick, isolate around and turn it into working models to send on to the next customer.

The best and most models it stock and will sell a new joystick off the day we get a broken one through," explained managing director Keith Rockwell. "We got the idea because the sort of the issue kept breaking his joystick and it was costing a fortune." The cost of recovering your stick is £4.50. More info on 0462 670723.



# TIMES HAVE CHANGED...

## But the problems haven't

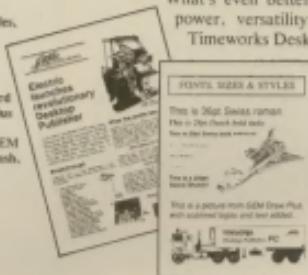
There was a time when all you needed to create the right impression was a good typewriter. Times have changed since Jim got his Home Portable, but the problems are still the same. From multi-national companies to the local squash club, everyone wants their printed material to be the best.

Until now Jim wouldn't have had much choice. He could do the job himself on his trusty Home Portable - or his word processor - or put the work out to a design studio and have it typeset. And he'd pay the price - with low quality or high costs.

Now there's a new choice. One that gives you the quality you'd expect from a studio, at a price less than some people might pay for a word processor! Timeworks Desktop Publisher turns your PC and printer into an instant electronic print shop.

What's even better is the unique blend of publishing power, versatility, and ease of understanding that Timeworks Desktop Publisher gives you. And there's a Guided Tour tutorial to get you up and running in under an hour! No need for sophisticated hardware either. Timeworks Desktop Publisher works equally well on a 512k twin floppy PC with a 9-pin matrix printer, or the latest 386 PC or PS/2 driving a Postscript laser printer. So you don't need to throw your software away when you upgrade your system.

Jim would have loved Timeworks Desktop Publisher. Isn't it just what you've been waiting for?



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- Wide variety of built-in fonts, sizes and styles.
- Top quality printout on matrix or laser printers.
- Built-in text editor with Search & Replace.
- Import text from leading word processors including Word Plus, WordStar, Word Perfect and Microsoft Word, plus ASCII files.
- Import picture files - line art or bit image - from GEM applications like Draw, Paint, or Scan, plus PC Paintbrush, Lotus 123, and others.
- Automatic text reflow during edits and layout changes.
- Typesetting functions include kerning and leading.
- Paragraph tags allow you to repeat styles easily.
- Style sheets for standard page layouts.
- Left and right hand master pages.
- Automatic hyphenation.
- Illustrated paragraphs.

*"To my mind its ease of operation and flexibility probably make this the most powerful DTP package around".*

*Clare Maiwarren, Assistant Professional Computing, September 1988*

*"The software supports all the major features offered by Ventura, plus a few more... Timeworks DTP seems to represent remarkable value for money".*

*Desktop Publishing, March 1988*

# GST

SOFTWARE PRODUCTS LIMITED

# Timeworks Desktop PUBLISHER

**Timeworks Desktop Publisher includes the GEM®/3 Desktop.**  
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# SCOR

*First pictures and exclusive review of Sega's sensational*

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New Computer Express has laid its hands on the **Sega Megadrive**, Japan's first new-wave console. Games freak **TONY TAKOUSHI** was there at the airport to collect the courier's carry-all, and brought it down to our offices for the first hands-on test in Europe.

**ANDY STORER** helped him unpack.

Take  
a look  
at this  
soft-  
ware!

These screens from Space Harrier 2 show what the Megadrive can do.



In Tokyo, the initial production run of the world's first 16-bit console sold out in a matter of days. After two years of project development, Sega Corporation has beaten the likes of Nintendo and NEC to present the cartridge-crazy Japanese market with this designer-chic console not much bigger than a portable CD player.

You can hook up the run-black Megadrive to your TV via a serial lead and play state-of-the-art arcade action games from your armchair; listening to its digital-quality sound through your hi-fi or headphones. It'll take existing 8-bit format Sega cartridges but only after you've paid £20 or so for an adaptor.

The console deck contains of a cartridge port mounted on a thin spherical dome under which is housed the hardware. Between left are switches for power on/off, headphones/earphone output volume and RAM reset. Underneath there's a compartment intended for unspecified future expansion - whilst round the back are power input and A/V output along with an extension port. It's also open to speculation what this may be intended for, but it looks like there are enough lines on the interface to support a keyboard, lightgun or 3D glasses. Along the front is a stereo headphone jack and two joystick ports to take the smooth, two-hand joystick control devices - one of which comes bundled.

The lightweight joystick deserves an eight-way, button-pass movement controller on one side with a start/pause button immediately above

# CHEER!

## 16-bit console

A bank of three fire buttons on the other. Control is extremely responsive and the hand-set designed to fit snugly into the palms.

All you'd really need to go fully hyperpunk would be a neural jack socket to connect it to a neck and, because once you're up and running the world outside stops.

Space Harrier 2 looked more than Space - we were left wondering how such a massive full-length scroll spring could be shifted at ultra high-speeds without any discernible loss in the velocity of other animated objects. Even through RF leads, anti-friction was flicker free.

These impressive visuals aside, the feature which knocked us out the most was the perspective change when the dying ground rises into the sky. The ground rolls away beneath you and the horizon drops accordingly to give you a true per-

spective viewpoint. It sounds simple enough, but try getting any other 16-bit computer to handle that information without stalling on speed. Until the unchuckered assess of the Amiga hardware are more extensively explored you won't. The Sega Megadrive is straight out of the future.

Expected to come in at nearly £200 when it hits the UK, it'll probably still be at the sacrificial near Christmas - and judging by the Japanese reading and the quality of the Space Harrier 2 cartridge we saw, it'll be a winner worldwide too. ■

### How much and where?

Sega's UK distributor, Virgin Mastertronic says the Megadrive will arrive in the UK next September and sell for around £200.

If you can't wait that long and fancy being the coolest dude on any block outside Japan, you can pick up the Sega Megadrive for only £85 in Tokyo. The return airfare's about a grand though.

The games cartridges sell for £25 in Japan - at the moment there's only Space Harrier 2 and Space Thunderdome available, but enhanced versions of Afterburner and OutRun are shortly to be released. By the time the games wing their way over here they'll probably cost you £30-£35.

## The works

Driven by a 68000 central processor running at 8 MHz tied in with a 4 MHz Z80 and a huge customised video chip, the Sega Megadrive puts out a palette of 512 colour, RGB quality graphics. With 64K of Video RAM, feeding the screen with 64 colours at any one time, and FM stereo output, you have a deck able to deliver all the audio-visual speed and power of an Amiga and more.



## The competition lines up

By now you know, the console war will have really heated up. Here are the machines the new Sega will be up against:

### Nintendo 8-bit System

• Standard Model £129.95

Console, two game controllers, TV connector, Super Mario Brothers Cartridge game.

• Deluxe Model £189.95

Console, ROB (Robotic Operating Buddy) robot, light gun, two game controllers, TV connector, two Cartridge games.

• Software

Cartridge ..... Around £25

Wide range of games software available in Japan, but only a limited number are released in UK.

• Visuals

Resolution ..... 256 x 240

Palette ..... 52

Display ..... TV Only

• Audio

Sound channels ..... 3

Stereo ..... No

### Sega 8-bit System

• Master System £79.95

Console, two game controllers, TV connector, Hang-on Smart Card game.

• Master System Plus £99.95

Console, Light Phaser, two game controllers, TV connector, Sabre Hawk Cartridge game, Hang-on Smart Card game.

• Super System £129.95

Console, 3D glasses, Light Phaser, two game controllers, TV connector, Missile Defense Cartridge game.

• Software

Cartridge ..... £11.95/£22.95/£24.95/£29.95

Smart Card ..... £14.95

Good selection of games available, usually the best 8-bit conversions of Sega's arcade coin-op games such as Out Run, Afterburner and Wonder Boy.

• Visuals

Resolution ..... 256 x 192

Palette ..... 512

Display ..... TV or Monitor

• Audio

Sound channels ..... 6

Stereo ..... No

### Konix Console

Due to be launched early 1989, priced around £150.

Reported to be a 16-bit console with better speed and audio-visuals than the Amiga. Will come with a three inch double-sided disk drive, but will also include the usual cartridge option.

### Atari ST Console

Due to be launched sometime in 1989, priced at £899.

Will come without keyboard or disk drive, and will run games software using cartridge format (the ST games are currently available on cartridge).

### Amiga Console

Commodore is believed to be launching a console based on the Amiga - no details are currently available.

### Nintendo 16-bit console

Nintendo is reported to be working on a 16-bit console, but again there are no other details available.

# Chuckie Egg

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ST, AMIGA OUT NOW

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# RIPOFF! The savage war against copy-cat software

**EXPRESS:** Given that there are so many similar games around, how can you stop people ripping game off? How can you judge a case of look and feel? Where do you draw the line?

**COUSENS:** You're legislating to socializing that is in someone's mind. We can look at more similar games and make a defence for use by pointing out the differences. That's what makes it difficult - but you bloody well know that one's been spinned from the other. You can't give up though, because you have to believe that in the fulness of time you will be noticed. The battle has not been won in other industries but there have been strides forward and progress has been made.

But isn't ripping off simply the unfortunate wages of talent and originality?

Yes, but you can be a lot more receptive to copying if you've been rewarded in the first instance. But if you haven't then you become bitter and twisted.

By stopping games from getting to market aren't you limiting people's choice?

No, it's about better choice. Our action against US Gold involved Geoff Brown picking up the telephone and explaining. He regretted it and I think he would admit that. He took the view that Gold, like Activision, Ocean, Sierra, and everyone, have to go back and secure licenses and have to defend them as an individual or by teaming with other

publishers.

People want R-Type because it's an arcade success. It means something to have the title which obviously you're paying for. I don't think that the consumer suffers in any shape or form. In fact, I think they're spoilt for choice.

What is a small software house had come up with a game similar to R-Type? It wouldn't have been able to fight any action brought about by you for fear of going bust?



Rod Cossens: "The rater's in the original"

There is an argument that says the big companies can use the legal system to their advantage as much as they can attack you at it. But there is also the view that smaller companies are afforded better protection because the judges are conscious of this. If you bring an injunction against a small publisher just for the hell of it that may work against you because you may leave yourself open to a claim for damages. The larger you are the bigger claim you're exposed to.

■ Copyright and the question of look and feel is ignored what is the long term damage to games software?

You have to forget the software publishers. In the programmer's livelihood you have to look at. You may take nine months programming but the thought process may take three years. You've produced that work of art only to see it blatantly ripped off under a legal system which is, as yet, far from clear. It denies you a livelihood and that's unacceptable.

You've come up with the most innovative design in the world only to see it ripped off a month later. All that work you've put in and someone benefit of ideas comes along and changes it because they can always rip you off again after the event. The rater's in the original but if that happens to you, you'd say "well that's it" and you'll go off and do something else.

That depresses the industry of the talent which we depend on. This is where wrong and that's why we need to defend them. There are lots of good programmers who can get a raw deal to live job or IBM but they choose not to because they're creative. But if you're not careful they'll just move away.

In this industry, which is so competitive, we have to defend talent and give it resources. Some kid can walk in off the street with some game. You stick it in and let it up and you say "Wow". We need to encourage and protect that. Otherwise, why participate in the software industry?

You've obviously drawn the battle lines and Katakis stepped over them. But where are they?

The battle lines are dictated by financial cost. There's a little point in

as going to court to lose. There has to be a case for it in the eyes of the judge. This can't be done lightly because the legal system won't allow it.

What about the argument that it's too hard to police because there are only basically seven games in the world anyway?

Remember, if you jump into a car it has to have a chassis. A game has to have a basic foundation. You hold something on that which is different from anything else. That's what makes it original and exciting. When you develop a game you're bound to a basic, say, sideways scrolling. But the theme and concept is entirely different.

■ Companies are going to start accusing each other of infringing 'look and feel' won't there be absurdities? And won't it become a forum in which to settle old scores? That could be why but litigation is a very costly exercise. Those that want to fight personal battles by way of so-called entrepreneurship through litigation should see that it makes little sense. You must avoid litigation at any cost. That can only be a last resort if there's a breakdown in communications. I don't worry about people going hell bent into court because I don't think it will happen.

## What is 'look and feel'?

Software houses have severe problems in arguing that one of their products has been copied off. The alleged clone will have been produced by different programmers and the program code may well be totally different. So the argument goes down to saying that the 'look and feel' of the clone is very similar to the original.

This is where the difficulties begin. It is very hard to define 'look and feel' and there is no clear dividing line between the rip-off of an idea and the developing of an established theme. The courts, I think, will have to decide.

## So what is the answer?

People should talk to each other because there is little to gain from litigation unless you're a lawyer. The two sides should talk. We should pack up the phone and say "hey, that's enough."

I did it to Thalamus. In my view the originality of Arisabelle is questionable. I wasn't looking for an argument. I just told them to make sure the game wasn't like R-Type or I may have been forced to do something. They assured me that it was different enough and I accepted that. We don't want to be facing each other across a courtroom being represented by lawyers. ■

## The curious case of R-Type and Katakis

Activision had licensed the coin-op hit R-Type and tabbed it in for a pre-Christmas launch. Cossens found out that US Gold was planning a similar style game for release in October. Activision swooped on US Gold in late September and demanded that Katakis be buried immediately. Gold, with a legal gun at its head, complied. Katakis was never launched. It has been suggested that Cossens left his attack until the last opportunity in order to inflict the most damage on its rival.

**COUSENS:** That is absolutely not true. Neither Geoff Brown (US Gold) nor myself need to conduct a campaign or vendetta. We're big enough to shun each other up to prevent haters coming to a head. His apparent non-response about Katakis' thought was that he was on holiday and so when he came back he was faced with legal action. And that may be.

But we acted before Katakis was published. If we'd waited and then issued a writ the Geoff Brown's damages would have been even more substantial. We knew that Katakis ended and we looked at it at the first opportunity.

## The hub of the argument

If you're planning to buy R-Type ask yourself these two questions:

1) Given that Katakis and R-Type are palpably similar (some would have called them the same game) would you buy both?

2) If you had bought Gold's Katakis in September would you be buying R-Type over the next few weeks?

Cossens reckons that if Katakis had hit the streets at least 20,000 pointers would have answered no to both questions. If so, he reasons, Activision would have been deprived of £800,000.

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Flight Sim 2	49.95	26.93	Padlock	14.95	10.25	Thred	14.95	10.25	Macra Assembler	29.95	18.50
Frontal Manager 2	14.95	10.25	Pain	24.95	16.93	TNT	14.95	10.25	Maps & Legends	24.95	18.50
Floofines	14.95	10.25	Padlock	24.95	16.93	Tranmission of Death	14.95	10.25	Modula 2 Developer	34.95	31.50
Foundation Waste	24.95	16.93	Pain	14.95	10.25	Trackers	24.95	16.93	Modula 2 Standard	34.95	72.50
Forsiden Most Dif	14.95	10.25	Padlock	14.95	10.25	Trax Rhinos	14.95	10.25	Music Studio	24.95	21.50
Forwards One	14.95	10.25	Pain	14.95	10.25	Teach Wrap	14.95	10.25	Music Studio	24.95	26.30
Freight Night	14.95	10.25	Padlock	14.95	10.25	Teach Wrap	14.95	10.25	Paintbox Basic	19.95	16.50
Great Dragon Domain	14.95	10.25	Pain	14.95	10.25	Teach Wrap	14.95	10.25	Paintbox Partner	19.95	16.50
Games Winter Edition	19.95	13.93	Pain	24.95	16.93	Terrestrial Encounters	14.95	10.25	Painting Partner	19.95	16.50
Garrison	24.95	16.93	Pain	14.95	10.25	Terrepoids	24.95	16.93	Paragon Partner	19.95	16.50
Gary Linkers Hot Shot	14.95	10.25	Pain	14.95	10.25	Three 3d -pc-	24.95	16.93	Sage Accountant Plus	21.95	16.50
Gary Linkers Stalks	14.95	10.25	Pain	24.95	16.93	Titanic	14.95	10.25	Sage Accountant	21.95	16.50
Gasbilles 2	14.95	10.25	Pain	14.95	10.25	Titanic	14.95	10.25	Sage Accountant	21.95	16.50
Gasbilles Hot Rally	14.95	10.25	Pain	14.95	10.25	Titanic	14.95	10.25	Sage Accountant	21.95	16.50



**SCHEER UNALLOYED ENTHUSIASM**

I bring your magazine reluctantly, as in the past I have accumulated a vast pile of computer-related mags that started off in the right direction. But as time passed, they not only graduated into more pages of games reviews, but increased in price regularly until they reached what seems to be a standard price for this type of publication, £1.25.

Agreed, the standard of the format and layout deteriorated greatly. The reviews were unprinted, page numbers to articles were the wrong ones and pages that contained reviews were not numbered so that it is difficult to find a specified page. So I decided to cease lining the pockets of greedy and unprincipled publishers.

Another criterion is the quality of spelling and grammar of all publications in the present day. Whilst I am no way a scholar I left school 14 years ago, I can read and write with reasonable accuracy. I would expect that a publication not fit for sale to the public could often a reasonable standard of the English language, whilst the many mistakes found in all the printed matter one attempts to read today.

So, having rapidly purchased your first and second effort, I

**● WHAT YOU THINK OF US**

offer you these comments in the hope that they will not fall on barren soil! Should the present style and price of your mag stay stable, or indeed improve, I may consider buying it. The ball is as were, in your court!

To conclude I wish you every success, and predict that if you follow the aforesaid guidelines, the resulting increase in your circulation will be assured.

**Robin Lanning, Hull**

**Congratulations – you have won this week's Mystery Prize. We're going to send you a free subscription to Express, but you might well regard that as a play from an unprincipled publisher! Instead, we'll send you a copy of one of our mags, to show you just how bad life can really be.**

No doubt we'll suffer foul of many of your critics already. All we can say is: sorry, we're not as bad as you say. (Cont'd page 57)

**MY TYPE**

I think that New Computer Express is far better than the others. I have only one complaint: there was far too much space wasted on the B Type review.

**Neil McGowan, Glastonbury**

**This is absurd, even we've got more complaints than that!**

game out on time.

**SIZE ISN'T EVERYTHING**

Over the past few years there has been one thing that has puzzled me more than anything else: the 3.5" disk drive. Am I alone in that?

Amdahl surely introduced it after the introduction of the 5.25" drive. Why? The 3.5" version format suffered from availability problems and costs double that of 5.25" disks.

Now you announce that Krome will be using a 3.5" drive in their console (Express 21). Again, why? It seems already stupid to not use an 8" inch space in a very limited area for a tiny drive, yet they've done it, but it's beyond me.

As now, I am interested in any news of the ST Plus. The Net Prestige has been lauding with various prices and technical spec's and a revised release date of Feb 1st '89, priced at £399.

Finally, I would like to congratulate you on producing two fine issues. I have long been dissatisfied with your competition, and I hope you maintain your quality. Just increase the news letters and keep the item advertising to a decent level.

**Peter Baldwin, Maidenhead, Berks**

**Do you think we have always to remember that the market is IBM Amstrad or whether a line up should (and will) William Peacock's running series for further prints?**

The conventional view is that the firm is little more than a follower where others lead – none of Japanese in

releases is to down and die and it will knock spots of most other computers.

**More in-depth games reviews for 16-bit machines.**

**Less games. There is plenty of needless drivel already for people with negative IQ's**

Apart from a slightly over flip approach which isナンセンス (nonsense) first but it fails to become exciting eventually. I congratulate you on a well presented and interesting magazine.

**I enjoyed the quotations in the news section and the Hyde Springs Entomist in PS&T**

**The article on PC Graphics was a splendid example of good journalism.**

**Keep things simple. Don't be excessively negative.**

**Really go to town on software houses and consistently bring out sound/vident games.**

**Less news type stories.**

**Expand your news coverage. It's great.**

**I think you have a swing if doesn't make my pocket much thinner!**

**Thanks for an excellent value for-money weekly – far better than the competition.**

photographing than European. Yet there's more to it than that, and it's called economics. Amstrad's use of 3" drives on the PCW was scarcely controversial likewise with CP/M, but that's another story! But because the 3" standard had taken Amstrad was able to buy up a huge number of these drives at a rock bottom price (less than £10 each). This means good news for the price of the finished computers: less good for the cost of the disks.

Thereafter, using 3" drives for the Spectrum +3 had more to do with the line's overcapacity than did any economic regard for the size. It has apparently never been a fundamental mistake, however.

As for Krome, the firm is in the uncomfortable position of not being able to comment publicly on its forthcoming model. Express's inclusion notwithstanding, analysis of disk sizes is, then, a little difficult. All will be revealed in the new year.

And then there's the ST Plus. The worldwide exclusive details of its existence, spec and planned prices were first smothered by a character who now works for Express. First assured that those figures will mean that Express will be first with the news about the Plus. Some pointers: don't hold your breath for February 1st; yes, it's planned to be £399 – with the ordinary STs probably dropping to £299 (standard) and £199 (handheld); it'll have 4,096 colours and both vertical and sideways scrolling; and

**● SPOT THE LINK**

**MOVIE**  
Well, it's been a while since I last reviewed a movie, but I have just seen "The Hunt for Red October".

**REVIEW**  
I enjoyed the film, but I must say that I'm not a fan of Sean Connery. He's brilliant, but he's also a bore. Still, I enjoyed the film.

**REVIEW**  
Recent entries in the genre of cartoon films have been

**MOVIE**  
I enjoyed the film, but I must say that I'm not a fan of Sean Connery. He's brilliant, but he's also a bore. Still, I enjoyed the film.

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 Tel for prices

Hyundai PC 10 Mhz  
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 ATARI PC2 and PC3 -  
 Telephone

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# THE PC SHOPPING NIGHTMARE

You can avoid it with this exclusive buyers' guide to Britain's top-value IBM-compatibles

**T**here are few more difficult tasks than buying a PC-compatible. It's rather like one of those Mensa tests where you have to spot the logical relationship between six confusingly different pictures.

Taken a step at a time, you might be able to choose between 8088 and 8086 processors, 512K and 640K of RAM, between mono and colour displays. But the choices pile up, and manufacturers insist on offering ever-so-slightly different configurations.

How do you choose between 512K and colour, or 640K and mono? Which is better: twin floppy disk drives, or an extra two or three expansion slots? Does a free mouse make up for the absence of an RS232 interface?

When you start to take pricing into consideration, the fog of despair settles and you could be forgiven for simply buying the first machine you find in a High Street shop window.

We decided to take a more considered approach.

## Cutting through the fog

To help us make a choice on a more rational basis, New Computer Express developed a way of rating every commercially sound feature in PC hardware for desirability. By comparing the total desirability rating with price, we were able to determine exactly how attractive each purchase would be.

Not all machines qualified – quite a few failed to meet our minimum spec of 512K RAM, single floppy disk drive, one parallel and one serial interface, and a monitor of some description. Some manufacturers even make you buy the MS-DOS operating system separately (an odd approach to PC compatibility).

A few more quickly fell by the wayside – would you buy a machine that had half the features of an Amstrad at three times the price? That left a few



handful contenders and these were slotted down to a shortlist of about 25 machines in some 70 different configurations.

These machines were then awarded ratings in the following categories:

Power	25pts
Storage	25pts
Display	15pts
Expandability	10pts
Usability	30pts

The sum of these five ratings gives a Total Desirability Score out of 100.

There are cut-offs here as these ratings – a hard disk is rated more desirable than VGA graphics; the Power rating combines processor and RAM because a slow processor with lots of RAM is as useless as a superfast processor with very little RAM. Usability gets the lion's share of points because it covers a lot of details: built-in interfaces, extra mice and extended keyboards, and bundled software.

The Express Value Rating, or EVR, is calculated by comparing the Total Desirability score with the machine's price. The maximum EVR of 10 is equiv-

alent to an imaginary perfect machine (with a Total Desirability rating of 100) selling at an unattainable price of £1,800 (impossible, but then it's supposed to be like that).

Six PCs came out reasonably well with EVRs ranging from 7.8 Full details on all six are printed on the next two pages.

The machine which came closest (with an EVR of 8) is a long way from perfection, but then it's also a long way from £1,800. Incidentally, we estimate in a similar basis, that the Asian 1040ST with colour monitor also comes up with an EVR of 9.1.

## Take your pick

Choosing your own personal winner depends on your answers to two questions: How much can I afford?

If you're on a limited budget then the Olivetti or Commodore machines are your best bet. The Olivetti has a definite edge, but when you add in the VAT it's well over £1,000 more – and both of them could be the deciding factor.

It may seem that there's an unacceptable jump in price, of the selected machines from £400 to £750, but remember our winning machines are based on value for money, not cost alone. If you want a mid-price machine, consider the Amstrad 2086 with mono (or mono/CGA) – pretty good value at £599.

What do I want to do with it?

Our six without cover just about the eventualities. The Olivetti and Commodore machines are perfect for home use, the Amstrad 2086 will handle any application that isn't too demanding, while for tougher tasks – serious business use or heavy-weight programming – look at the hard disk systems. The Boxes and Adware machines, or our only AT-compatible outfit, the Amstrad 2286,

## The big losers

The question on everybody's lips is: what came out as the worst value machine? A list of computers here – it could have been the £1,799 Hewlett-Packard Vectra, or the Compaq 1040ST at £1,595, or even the £1,595 Honeywell-Bull PCXP. But the hands-down winner is a well-known German manufacturer offering what is almost a cult-class computer: the Zilog Z10.

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# RATINGS and WEIGHTINGS: a unique

	<b>Commodore PC1</b>	<b>Olivetti PC1</b>	<b>Amstrad PC2086</b>
<b>PRICE</b> <small>The list price, ex-VAT, for each model in the configuration described. We have picked the config. ratios we consider best value.</small>	<b>£315</b>	<b>£399</b>	<b>£749</b>
<b>POWER</b> (rated out of 20) <small>Cores the power output of the central processor and the amount of memory available measured in Kbytes. 90.</small>	● 8086 processor running at 4.77MHz ● 512K memory expandable to 640K on board	3 ● 4.77MHz 8088 ● 512K expandable to 640K on board	5 ● 8MHz 8086 ● 640K
<b>STORAGE</b> (out of 20) <small>What type of disk drives are included. 3½" floppies are better than one and 3.5" is better than 3.25". Best of all is a large hard disk.</small>	● 1 x 5.25" 360K floppy	4 ● 1 x 3.5" 720K floppy	10 ● 1 x 3.5" 720K floppy
<b>DISPLAY</b> (out of 15) <small>The graphics modes built-in and the monitor supplied for the price quoted. CGA is hires mono, CGA is a simple colour (and lowest monitor mode), EGA is better colour, VGA best of all.</small>	● CGA adaptor, mono monitor	3 ● CGA display, supplied with mono monitor	3 ● VGA-standard adaptor, hires colour monitor
<b>EXPANDABILITY</b> (out of 10) <small>The number of slots available for expansion cards (such as hard disk cards or modems), and the facility for adding other peripherals.</small>	● Capacity for external floppy and hard disks ● Single slot for PC	1 ● expansion cards ● 2nd floppy drive, or 40Mb hard drive available ● Colour monitor optional	3 ● 3 x standard expansion slots ● 2nd floppy disk or hard drive
<b>USABILITY</b> (out of 30) <small>Covers all other features supplied with the machine which improve its versatility.</small>	● 1 x parallel printer interface ● 1 x serial printer/modem interface	11 ● 1 x parallel printer interface ● 1 x serial printer/modem interface ● First Choice integrated software package – word-processor, database and spreadsheet	16 ● 1 x parallel printer interface ● 1 x serial printer/modem interface ● Mouse ● Expanded keyboard
<b>TOTAL DESIRABILITY SCORE</b> (out of 100) <small>The total of all the previous ratings.</small>	<b>23</b>	<b>37</b>	<b>63</b>
<b>EXPRESS VERDICT</b> <small>How it stacks up overall, what it's best functions are, who it's aimed at.</small>	● Rather limited, even in comparison to the Olivetti PC1, Commodore's entry-level machine lacks any internal expansion possibilities, and features the original, slow processor of the IBM PC.  However, it's priced accordingly and is almost certainly the cheapest PC-with-monitor available in the UK so if you want bare-minimum PC-compatibility without paying much, this is the machine.	● Although technically limited, the Olivetti's low-price makes it unbeatable value for money. The 720K floppy disk provides the equivalent storage of an older twin-disk PC, and the inclusion of the First Choice software means you can put it to use straight away. The expanded versions score a slightly lower VFM rating, but if you think you might want colour, you'd be well-advised to buy it immediately – second-hand mono monitors are virtually worthless.	● When Amstrad Sugar announced the PC2000 series, many observers lamented the lack of an earth-shattering price. But the machines still represent good value for money.  The 2086 may not have a super-fast processor, nor the high-capacity hard disk many businesses will require, but it is a capable system and there's the fillip of future-proof graphics. With the 2086 you get VGA at the price many main manufacturers are asking for EGA.
<b>EXPRESS VALUE RATING</b> <small>Total Desirability compared to Price.</small>			

# evaluation of six top-value PCs

Elonex PC88C



Advent PCXT10



Amstrad PC2286

**£775****£995****£999**

- 4.77/10MHz 8088
- 640K

**9**

- 10MHz 8088
- 640K

**9**

- 12MHz 80286
- 1Mb expandable up to 4Mb on board

**16**

- 1 x 5.25" 360K floppy
- 1 x 20Mb hard disk
- 1 x 5.25" 360K floppy

**18**

- 1 x 30Mb hard disk
- 2 x 3.5" floppy disks giving a total of 2.88Mb of

**23**

storage

**13**

- Hercules-compatible, with mono monitor

**4**

- EGA adaptor, mono monitor supplied giving Hercules-standard display

**9**

- VGA-standard adaptor, mono monitor supplied

**13**

- 4 x standard expansion slots

**6**

- 8 x full PC expansion slots
- Colour EGA option (£200 extra)

**10**

- 5 x expansion slots
- VGA colour monitor (£150 extra)
- 40Mb hard disk (£350 extra)

**8**

- 1 x parallel printer interface
- 1 x serial printer/modem interface
- Mouse
- Gem v3 with 1st Word and Gem Paint

**21**

- 1 x parallel printer interface
- 1 x serial interface
- Extended keyboard
- 1-year on-site warranty

**18**

- 1 x parallel interface
- 1 x serial interface
- Mouse
- Extended keyboard
- Windows 3.1

**22**

• A business system offering very good value for money. The fast 8088 processor, coupled with the 20Mb hard disk and Hercules-standard graphics make it a good choice for serious word processing and general office use.

With this machine you get a compact design that still allows you space for four standard expansion cards. And the software bundle is reasonable (although a more businesslike package wouldn't hurt).

**58****69****72**

• A fully-equipped business workhorse. Although it's not likely to set many hearts beating with excitement, with a reasonably nippy processor, 30Mb of disk capacity, and either Hercules or EGA colour graphics, it's almost impossible to fault. The one-year on-site warranty will probably convert any doubters among the business fraternity.

• There are cheaper AT-compatibles, and there are cheaper VGA machines, but there aren't too many systems that can give you this standard of computing power at the same price.

A machine that will see you well into the next decade.



## The D-I-Y Option

You can use our rating system to evaluate any of the hundreds of different PC models available.

Simply compare each aspect of your chosen PC with each of the six listed here and award it the same number of marks as the one it is closest to on that aspect.

For example, if it has one 3.5" 720K floppy drive like the Amstrad PC2286, award it 12 points for Storage. And so on.

By adding up the points you can then determine its Desirability Factor, and by dividing that by the price (in hundreds of pounds) you can come up with a value rating.

We'd be interested to hear of any PC configurations which come out particularly well or particularly badly!

Write to: PC Comment, New Computer Express, 4 Queen Street, Bath BA1 1EJ.

## Where to buy

If you know what you want, the cheapest way of buying a PC is mail order. Check out the adverts in this magazine and remember you can use the voucher on page 41 to obtain a further £10 discount. If you prefer to buy elsewhere, here are the details:

**Commodore PC1** – any Commodore dealer. Call Commodore on 0628 770068.

**Olivetti PC1** – available through Dixons.

**Amstrad machines** are available from various dealers and Amstrad Business Centres. Details on 0277 228888.

**The Advent PC** is available mail order from Vision 101 588 2654. Likewise, **Elonex** is sold mostly mail order – call 01 965 3225.

## THE WINNER

The Olivetti PC comes out of our survey as the overall best buy.

It's ideally suited to anyone who wants to run IBM-compatible software at home; who's looking for a low-cost entry to the world of PC computing.

But even more important than the make, is the need to make sure that the configuration you buy is the one best suited to your needs. Happy shopping! \*

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# The best Amiga wordprocessor?

**Ben Taylor assesses Protectext on the Amiga, the latest version of Amor's old WP fave**

Too many cooks spoil the broth, goes the old aphorism, and in the past word processing on the Amiga has all too often been a case of lots of colours and fancy fonts but not much attention to the essentials of getting words onto paper.

Protect began life in 1986 on the CPC, migrating to the PCW in '88, PC in '87 and ST in '88. Now it comes to the Amiga with a reputation as a no-nonsense package aiming to deliver text processing WYSIWYG taken out.

## User Interface

True to its roots on CPC, PCW, PC and ST, you are faced with a screen and horizontal dividing bar. Above the line is the text you are working on, and below is where you type in any commands such as leading and saving New. Pressing [Esc] expands the editing part of the display to the full screen, whereupon you can get down to the serious business of putting those queries.

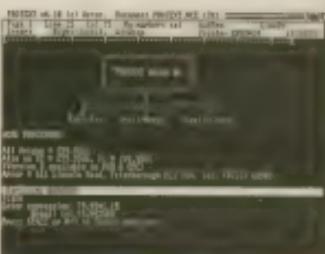
Editing is generally keyboard driven as are [Ctrl]-M to move a block, for example. However, for version 4 Amor have also put all the commands on standard menus. The program runs as a proper multi-tasking Amiga application.

The interface remains unidirectional. You can't open multiple windows (although Protect has two editing screens anyway). For styles, rather than selecting text and choosing *Bold* on a menu, you insert special codes in the text. Another oddity is that Protect ignores all the Preferences printer drivers and uses its own instead. For better control, Amor say.

## Features

Protect is a Word processor that you feel the designers have actually used. Of course it's got block copying and moving; of course you can set words in bold, italic and underlined; of course there's a mail merger and spell checker. And they're fast. But what makes it good are the extras. There's a good *Table* and a built-in calculator. A unique feature is the *Box* mode, which lets you to move any rectangular block on screen. Boxes allow you to shuffle columns of tables around or create pages of two- and three-column text - almost DTP-like.

Every command and every keystroke can be stored in a file and executed automatically. You can do things like setting up (P)H to run a



Protect Amiga showing off its line-drawing capabilities in the top half of the screen, while working out a VAT sum below

## Horses for courses

### - How well will Protectext meet your needs?

- If you're a complete novice on the Amiga, you could be in trouble. Protect's installation process is tricky.
- If you want to be able to use the Amiga specific fonts (Gothic, Emerald etc) or import graphics, Protect is not good for you.
- But if you're in the business of handling BIG documents or DIFFICULT mailshots, or in fact for any editing task, Protect is the only one with the power you need.
- If you're a programmer, there is no better editor on the market.

As a test of its speed, we did a Find-and-Replace on a word document 203 times in a 6000 word test file:

Protect Word Perfect Scribble Vizawrite  
3.7s 8.6s 35s 62.5s

## HIGHLIGHTS

- Superfast editing
- Powerful macro command language ideal for repetitive editing chores
- Comprehensive mail merger and spell checker
- 'Prog' mode for programmatic ASCII editing

## DRAWBACKS

- ASCII can't spell check within Protect
- Can't include graphics or alternative fonts in files
- Not friendly to the beginner

string of commands to delete the first three characters of each line.

Other goodies include an ASCII editing 'Prog' mode, and the ability to run any Amiga program from within Protect.

Protect's real strength is very powerful, allowing you to construct complex conditional loops to readjust only selected people. The spell check lets you choose between three different dictionaries (for speed - but spell checking from floppy disk is slow). At the best of times. Unfortunately, memory is too low to run the spell checker from within Protect as an A500.

Protect lacks the ability to import graphics (you can't Import, nor can it access any of the many Amiga system fonts). This, almost certainly, is the price of its speed.

## Documentation

The biggest complaint is that at present the Amiga manual is a PC manual with a few sheets of Amiga-specific addenda tucked in the back flap. Didn't we get one even manual for 100 quid then? Having to wade out the MS-DOS commands is annoying, and the Amiga-specific installation instructions are poor.

On the upside, though, the tutorial sections are clear and there is a good selection of appendices to act as the secondary reference guide. All that is missing is a better cross-referenced index. The manual and on-screen help systems supplements the manual.

## Verdict

Protect knows what it does - it doesn't make any attempt to compete with the increasing number of meta-desktop publishing graphics-based WPs. Even so, if you want to do word processing, then quite simply Protect is the best Amiga Word Processor. But, cheap, why not £20 more than on the ST?



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## One up on 3.0

The Amiga Protect is version 4 in Amor's numbering scheme. If you've used version 3 on CPC, ST, PC or PCW then there's good news and bad news. The good news is the enhancements.

- Auto reformating of text (fairly half-hearted though - it doesn't format beyond the current cursor position)
- Menus driven operation rather than control keys
- F9/F10/F11 keys
- Headers and footers up to nine lines each
- A line-drawing utility to let you add boxes to your text
- Better printer drivers
- Macro record mode - Protect stores what editing keys you press then plays them

Version 3 has all the features mentioned in the body of this review apart from the ones in this box. The bad news is that if you own a CPC or PCW, you won't gonna get version 4. Amor reckon you just aren't lucrative enough to be worthwhile. Shame.



# Games meltdown

Computer games are melting down the Entertainment software frontiers! As it's come to pass, it's time for Microdeal to introduce you to some of the most exciting new titles.

**FUSION ELECTRONIC ARTS**

Showing off on the ST after its well-received debut on the Amiga, comes EA's strategic shoot-em-up, with artwork that should feature in the world's art galleries and emotive graphics that should keep you busy for days. Find and reassemble the parts of a bomb hidden throughout the various levels, and evade fire spouts of enemy hulks beneath skies and bunkers. Then blow everything to bits.

#### TECHNOCOP GREMLIN



In these 200 mph plug-Road Wars, your quest is to eliminate the baddies that are destroying society. Yep — you're a cop. So after driving through endless highways of harpoons, bombs and sheep terrain you'll be only too glad when you receive reports of a nearby disturbance or your word radar and pay a visit to the scene of the crime. Then kill everyone you come across.



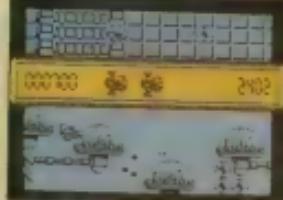
#### SANXION THALAMUS

Prokofiev hits the Spacey, with music from Themes and Jazz to accompany this epic blaster — which pretends a couple of years ago on the C64 and sold quite nicely, thank you. Based on the Spectrum Romix, it's a horizontal scroller in which you get to see action displayed from both side and overhead views simultaneously. Don't be disappointed by the very early screenshot — colour should be sweeping its way in these reader to release date.

#### This week's sneak-a-peek...

##### DRAGON NINJA IMAGINE

Available as a free demo with ACE's next issue is the dual-format ST/Amiga version of this martial arts kick-em-up, and many nice it looks too. Eight levels of aggro-agrobatics will see you attempting to total any bad dude that comes within striking distance.



#### GRAIL ADVENTURE MICRODEAL

You take the role of Bifot here, a wizard searching for the Holy Grail with Dafra, your friend and servant, in the land of Kotor. Of course, there are many patrols bewailing you all there, but grapple is arranged in such a way as to let you define your own path to the story. A fully mouse-operated adventure featuring three optional dialogue lessons, plus a fair measure of interactivity to the standard text adventure and a whole stack of colourful graphics as well.



#### TINTIN ON THE MOON INFOGRAPHICS

The first licensed game on the Herge characters, with you playing Tintin alongside Snowy the dog, Captain Haddock, Professor Calculus and the Thompson Twins. Suffering the effects of weightlessness, you must pilot your spaceship through meteor storms and hostile attacks and attempt to land amidst the craters of the moon.



#### AIRBALL MICRODEAL

Believe it or not, this little you're a rubber ball. In a 300 room mansion, you have to find a spell book that'll return you to human form again. Unfortunately, though, you have a leak, so you have to locate air pumps on your way out and fill up — but fill too long and you explode! Watch out for spikes too! They'll take your breath away. Colorful geometric graphics complete a compulsive adventure for Amiga die-hards only.



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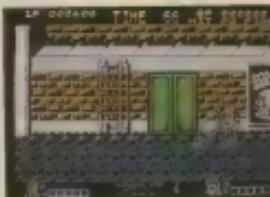
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Welcome to New Computer Express's games section, the liveliest, most up-to-the-minute reviews for miles. Here's what we offer that other magazines don't:

- make sure more than one person sees each game, so that the verdict can be refined on.
- avoid the 'shoddy' practice of basing reviews on unfinished games.
- break up reviews into easily-digested sections relating to scenario, gameplay, graphics etc - no more hunting to find out what you want to know.
- take version differences seriously. You'll always know what machine the game's being reviewed on, but we'll give you information about other versions too.
- use a simple, no-holds barred, no-fluff star rating system, where only the very best games get the coveted five-star rating.
- give games of particular significance their own box, together with a blurb to say what's different about them.

## DOUBLE DRAGON

Double Dragon  
Amstrad CPC 610/664/666  
Atmospheric Software  
£14.99  
Available CPC, ST, Amiga



\* Spec - Demolition is the name of the game

Double Dragon is a conversion of the immensely playable coin-op beat-em-up courtesy of Melbourne House.

### VERSION UPDATE

You'll have to take on the likes of the city in a bid to rescue your girlfriend from an evil street gang in this one or simultaneous two-player kick-em-up. You have the usual range of martial arts masterstrokes, ranging from jump-kick to a well... headknock. As you slay through the opposition you'll meet all sorts of weirdos, such as who-carrying women, baseball bat maniacs and massive monos. It's a good job you can use these weapons against them if you get the chance.

Videos give a very good account of themselves - with large, nicely defined and animated sprites and accurate representations of the backdrops. The only flaw is that the actions are not always clearly visible - Fortunately, with the sound of the action you hardly have time to notice. The frictional sound-effects are less impressive and limited in number.

### C64 VERSION

Oh dear, the programmers have really screwed up with this conversion. You know something's up as soon as you read the instructions, which includes a snarling zoology

# MICROPROSE SOCCER

### MICROPROSE

C64 - £14.99, £19.99

Due out on PC early '89

Other versions under consideration

But you'll never guess what Microprose Soccer is all about... Give up? Well it's yet another contender for C64 football sim of the year, only this time, it could actually be the league champion thanks to the talents of the Sensible Software boys - who are also responsible for those other C64 greats: Parallel, Michael and Shoot'em-up Construction Kit.

### GAMPLAY

You start off by choosing which type of fixture you want: it's 11-a-side in Association Football or American Rules Six-a-Side later. Microprose is a soccer-orientated outfit so the major differences in the US version are six-a-side (instead of the usual 11) and an indoor pitch which is reduced in size. There are also differences in the regulations governing play and a slightly faster pace.

Once the game has loaded, you are faced with the choice of Microprose International League, World Cup Tournament, Soccer League, Five Player Friendly, Demo Game, Control Panel or naming your team.

The first four options allow you to decide on how many players (1-16) will participate in the ensuing soccer action. Demo provides a quick look at a game for all those amateur soccer stars. The control panel produces a range of options: manually/automatic player selection during play, weather conditions (watch out for those lightning bolts), banana kick power (overlive those balls guys!), match length (2x12 minutes), replay (switch those poor robots goal replays on/off, mono or colour @16bit, soundtrack on/off and save/load league

plaques). When you actually get down to the action, you're placed in an over-head view of the pitch complete with some fancy soccer moves such as the aforementioned banana kick and a truly impressive overhead kick, as you tackle your way through the big match.

### GRAPHICS AND SOUND

It's refreshing to see a new style of graphical representation as a micro-based soccer game: the usual weapon being the use of 3D side-on perspective, with adequate quality overhead shots. Sprite animation, definition and colour are all superb, although there's not a lot you can do with the graphic engine of a football pitch!



\* C64 - We've heard of clear co-ordination, but this is ridiculous

Audio is of a reasonable standard, containing short sound-effects ranging from whistle blowing sounds to ball-bouncing noises - accompanied by a laid-back soundtrack.

### OTHER VERSIONS

We're afraid other machine owners will have to wait a while, 'cause it looks like Microprose are gonna take their time producing conversions of this one - write in and tell them to get a move on!

### EXPRESS VERDICT

We believe Microprose's International Soccer to be the definitive football simulation on the C64 - until we see Microprose Soccer - now we're not so sure. With its high-gloss splashing options, foot-tapping audiovisuals, and keypad-running gameplay, Microprose Soccer is an essential purchase for any C64 football fan.



Rik Haynes



\* What's the England goalie doing?



\* It's a job England's got Unkar!

concerning the technical faults of the C64 hardware, forcing compromises to be made in the conversion.

In play, the sprites are minuscule and totally out of proportion with the background. There's also a bug which leaves them with a gap in the middle. And these are just minor blemishes when compared to the awful gamplay - your manoeuvres are completely different to those in the arcade game. Host Unkar!

### EXPRESS VERDICT

Microprose DD is far superior to the C64 version, giving an accurate and exciting rendition of the coin-op's visuals and addictive gameplay. It's got a good balance between playability and lasting interest, so prepare yourself for some marital arts mayhem.



Rik Haynes

# PURPLE SATURN DAY

EXXOS

ST - \$24.95/£6

Out soon on Amiga

This is the second of six projected releases for the coming year via Infogramme/Ere on their new Exxos label and continues the distinctive graphic work of Captain Wood's Didier Touchon. As you might expect, the result is bound to look very sexy – and that's before you've even cranked up the volume control.

**• GAMERPLAY**

*Purple Saturn Day* is a tournament comprising 4 events in which you compete against one of eight aliens in a knock-out series requiring skill, response, coordination and strategy. You may choose to conclude each event with training outings against robotic partners or plunge headlong into the arenas for the action – somewhere just off Saturn.

Your first opponent is chosen at random from a range of bizarre creatures, including some of the characters to be found in *Blood*. After checking out your opponent's performance in previous events and his/her/its attributes (strength, intelligence, vision, sense of direction etc) you get down to the real business. Playing games.

Should you choose to try your luck first with *Ring-Pull*, you'll find yourself wrung Saturn's rings, dodging



• Running rings round Saturn as you dodge a passing satellite

'Tronic-Slayer' is set within a four-sided arena where you're in a hurry fighting to gain energy by firing rockets at the left-most bullet at fast-moving energy bolts before your opponent has chance to get them and thereby absorb their energy. Movement is effected in the same way as in *Ring-Pull* through the time the arena is flooded with an ever-increasing surface of malleable plasticine to complete the effect. For maximum craft, which the French programmers have achieved, the bar starts at 100% hyper-examplifiability – just clicking the right mouse button while turning will effect a full 90 degree ultrafast swivel. This time you're both as against a clock – which is just as well since otherwise you could be mayhem forever.

Next up is *Brain Bowler*, which is the most taxing of the four events in terms of exercising the grey matter. You're fighting to deactivate half of an exploded brain by directing 6 charged red implants through an intricate network of gates and condensers. By firing at various components in the network to open and close pathways you can direct current to the centre of the brain whilst attempting to sever your opponent's connections and steal energy from supply pads. The action here is at once both combat and strategic and, like every other event it adds here, so involves a considerable amount of thinking in its purest right.

*Alien Jumper* is relatively open ended; straightforward by comparison, can become as more traditional shooting, where you have to blast several layers of cover dots as you struggle to control your alien's progress. Pressing energy streams in a bid to come first at Temporal Long Jump.

After completing the four events your score is added up and if you beat your

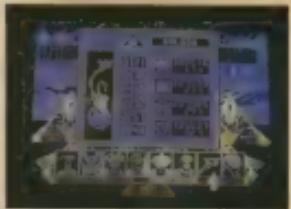
opponent you progress to the semi-final stage where you find yourself up against the winner of another contest. By this time you will find you and your opponents' statistics will have been updated accordingly, as indeed they will be every time you subsequently boot up.

**• GRAPHICS AND SOUND**

One screen surround, that of your cockpit replete with animated finger movements as you control whatever vari-

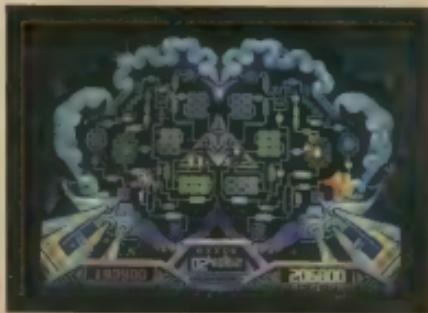
able you find yourself in, links the visuals comprising each event. Needless to say, this is immediately reminiscent of the ship's interior in *Blood* – emphasis is placed on the blue and purple end of the spectrum, with subscreens either side showing your position and progress, you and your opponent's scores up top, and the event timer down below. Animated action within this screen is spectacular in all events. In *Ring-Pull* for instance, you have simultaneous independent scrolling of three surfaces along with fast scaling sprites.

Sound effects are not too – with what sounds like digitised speech effects underlining every collision you come across. Once again, you're left with a top-notch French extravaganza which, and this should be written in six inch high letters, DOES HAVE GREAT GAME-



• The attributes of another alien adversary you're up against

metres and satellites as you race against your opponent in a bid to take the lead and thereby score points. Once ahead you can increase your scoring rate by weaving to the right of the real satellites and left of the yellow ones. You move the mouse forward to accelerate, back to brake – though to get ahead of your opponent it's best to veer to the outer edge of the rings and then cut inside for the satellite stations. After completing a full circuit of Saturn the race is over, your relative scores are noted and it's onto your choice for the next event.



• Battling brain battles as you charge through central circuitry



• Just about to blast the energy bolt before your opponent beats you to it

**PLAY**
**• EXPRESS VERDICT**

Definitely the best game to have arrived of these offices since *Express* was launched, and easily one of the strongest releases of the year. *Purple Saturn Day* offers great value for money. Here you have brilliant graphics, solid sound and diverse gameplay all wrapped up in one great package which would take you a journey to Saturn to master. Yip, it's got insidious involvement. And if I had rings around the conscience of release.



# CAPTAIN BLOOD

**INFOGRAPHICS**

Amiga £24.95/DK

Already on ST, PC, CPC

Also on C64

Coming soon: Spectrum

**Info**graphics' best selling release to date is an intergalactic adventure featuring some of the best graphics and sound available on all formats. It's also rare among exploration games in that it includes conversation with a range of animated characters, involves no violence of any kind, and requires tight aim sensitivity in its aerial sequences.



• Flying down a canyon on your way to a rendezvous with an alien...

**GAMEPLAY**

You've been cloned thirty times, after you built and plotted a prototype biotech hyperspace vehicle that had a small accident off Andromeda. You're after your five remaining clones hidden across the galaxy, and you're wondering which of the 32,000 planets available there are hanging out on. Fortunately, there's 12 types of aliens you can come across: down or planet surface who, in exchange for various favours ranging from destroying worlds to finding their sexual partners, will provide you with the co-ordinates of the next step of your mission.

All operations are mouse and icon controlled. You have a galaxy map and cross-hairs with which to pinpoint a destination, and from there you hypothesise to the selected location and dispatch a controllable surveillance vessel to the planet's surface in order to meet the inhabitant. All worlds require light-fight over mountains, valleys and forests, and you have to locate a canyon at the end of which should be your alien. Using a system of 120 icons, you must attempt to glean information from your host who can be very elusive – your approach has to differ according to the character encountered – and you're never quite sure how much they are hiding from

you.

Each new game has a brand new set of inhabited planets, making Captain Blood a long, long venture.

**GRAPHICS AND SOUND**

After the superb results of the ST version you might expect the Amiga's capabilities to enhance Blood's graphics further, but there's not a great deal of difference – if anything, the ST's are slightly better – nevertheless,

less you're talking high-quality. The wire-frame animation of the planet's surface contours are just as fast, revealing planet and creature movements identical, and the hyperspace and planet destruction sequences virtually identical.

Where the Amiga version scores over the ST, however, is in the sound effects: digitised speech and atmospheres are drastically improved and benefiting from stereo output. Disappointingly, Jean Michel Jarre's intro theme hasn't been lengthened, but what there is is easily the best sounding score made in any game released – with the exception of the intro to *Link to CD* on the Amiga.

**OTHER VERSIONS**  
The Amiga version easily outshines all others – with the exception of the ST, where it's a close finish. The CPC, C64 and PC releases tag along behind, suffering from their relatively poor machine specs – though the C64 version is a brave effort. Blood's out on the Spectrum later this month.

**EXPRESS VERDICT**  
Graphically, one of the greatest releases on any format, Blood relies on long-term retention. Once you've mastered the flying sequences and icon comprehension it's down to solving the cryptic puzzles presented by its alien characters. This can be a long drawn out process – possibly longer than its graphic excellence compensates for.

Andy Storer

**GREAT GRAPHICS!**


• ...and here he is! It looks like he's got plenty to chat about

**WANTED**

PC-DOS/AMIGA

£34.95

Available: Amiga

Remember Capcom's *Gun.Smoke* arcade game? Well, Infogrames obviously does, as their latest release is ever-so-slightly reminiscent of the aforementioned vertically-scrolling shoot-em-up.

**GAMEPLAY**

Taking the role of a shooting-fooling, gunslinging sheriff you'll have to clean up the West by ridding out the wanted crims in the area – but the higher the price on their head, the tougher the opposition will be. During play you'll travel

through such infamous cliché-filled Western scenes as the canyon, the railroad and the obligatory ghost town.

Help comes in the form of barrels scattered across the landscape – which, when shot, will give you collectible goodies like extra bullets, dynamite, dynamite bomb and



• This town isn't big enough for the three-and-a-half of us

cowboy-boots (speedo).

So hit the shoot-out trail again – but keep an eye on your amino total or you'll end up feet first in Boot Hill.

**GRAPHICS AND SOUND**

Audiovisuals are best described as simple but adequate – ranging from reasonably well-animated snailish sprites to lowkey gunshot soundeffects.

Far from satisfactory is the really awful title page and soundtrack – why bother including this sub-standard trash?

**OTHER VERSIONS**

The only other version planned is the Amiga – perhaps the sound will be better?

**EXPRESS VERDICT**

Wanted is no more than a simple, although at times annoyingly frustrating, vertically-scrolling shoot-em-up in the Conquesto mould – albeit with a new twist in the scenario.

It's probably worth a look if you haven't already got Microdel's *Leathernecks* or Elite's *Rain Warriors*.



Rik Haynes

**TRANSPUTER**

Amiga £19.95/DK

Available: Amiga

**Transputer II** designed by Clement Jack the Ripper Chambers, and is yet another Breakout clone, seen with a new (but not necessarily improved) pseudo-3D, isometric view of the action.

**GAMEPLAY**

Transputer follows the standard route of the genre – you knock out bricks using a bouncing ball which is manoeuvred by a bat under your control. You also have a limited supply of missiles which can be used to directly take out the bricks.

Occasionally bricks yield a desirable item such as a larger bat, more missiles or a score bonus. When all of the bricks have been destroyed, you'll move on to the next screenfull, which is basically the same as before...



• You'd be hard pushed to find a worse Breakout clone than this

**GRAPHICS AND SOUND**

Silence to say that *Transputer* probably offers the worst colour scheme of any game this side of a ZX81 release, and is perfectly complemented by the amateurish graphic design style employed.

Audio is the only near-adequate aspect of the game, with short and muffled sampled sound-effects and speech effects used extensively throughout – so extensively you'll probably grow sick of them after only a few games.

**OTHER VERSIONS**

ST *Transputer* closely replicates its Amiga partner – but that's nothing to be proud of.

**EXPRESS VERDICT**

Whatever happened to the CRL that produced the classic *Tau Ceti* or the Spectrum? – it surely must be beyond redemption if this release is anything to go by.

The originality of *Transputer* comes in the form of total unplayability, chronic boredom and incredible boredom. There's no point in bothering with this sub-standard release, when you could go for Ocean's *II* or the ST or Microdel's *Gungan* on the Amiga.



Rik Haynes



# Devpac Amiga Version 2



## The Best just got Better!



Devpac Amiga has always been the popular choice for assembly language programming on your Commodore Amiga. When it passed its second birthday we took a fresh look at it and realised there were a few things it didn't do that we, and you, wanted it to. So we re-wrote both the assembler and debugger totally from scratch, allowing us to add features that were not possible in the original versions. We then substantially improved the editor as well to give us an unbeatable combination of features - see the table.

### The Editor - true integration

The fast editor is based on the original but with extras like block highlighting, a file requestor and the ability to make backups of your source files. The assembler and debugger are both available, instantly, at the press of a key.

### The Assembler - no waiting zone

GenAM was always fast but the all-new algorithms means it's even faster, particularly on larger programs. It handles multi-hunk code, 127-character significant labels, local labels, improved macros & conditionals, generates directly executable, or linkable code, and a stand-alone version is included so you can use a CLI, a batch file or an alternative editor.

### The Debugger - kills bugs, dead

How many times do you write a completely bug-free program? Trying to debug a program by looking at guru numbers is what some development systems leave you to do. We include a disassembler/monitor/debugger called MonAM, which uses its own screen display, leaving your program's output alone. It has a range of different types of breakpoints including count and conditional breakpoints. For example you can stop after the 24th call to print or stop if the contents of mem\$\_str become odd. You can also break into runaway programs, or you can even view your source-code files from within the debugger and use multi-hunk program symbols.

### Ideal for Beginners & Enthusiasts

The editor is fast and easy to use, you can assemble from memory to memory then execute it repeatedly to try your ideas out, all without a disk access. Press a key and you're straight into the debugger, you can even debug programs assembled to memory with their original symbols. No linking is required - the assembler can generate directly executable programs immediately. Interested in hacking somebody else's code, such as the ROM? - with the debugger you can disassemble to disk with automatic labels, including system calls. All programs will work on a 60-column display.

### Ideal for Professionals

If you're not using Devpac for software development then you'd better hope that your rivals aren't either. Why wait for your editor to load a file or for your assembler to chomp through it - GenAM is the fastest professional assembler available and is fully source code compatible with the MCC assembler. We write in 68000 assembly language every day so we understand what you need.

### Ideal for You

Just compare the specification with any other product and we're sure you'll agree

### Devpac Amiga 2 - There is No Competition



The Old School, Greenfield,  
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	Devpac Amiga 1	MCC Asm	Y-SIM	Devpac Amiga 2
Screen Editor	Y	Y	N	Y
Handles tabs as single chars	Y	N	N	Y
Step through assembly errors	Y	N	Y	Y
Automatic backups	Y	Y	N	-
Integrated assembler	Y	N	Y	Y
Integrated debugger	N	N	Y	Y
Macro parameters	10	10	9	30
Multi-line macro calls	N	N	N	Y
Conditional assembly	Y	Y	Y	Y
Case foldable	Y	Y	N	Y
Local labels	N	Y	N	Y
Executable, relocatable code	Y	N	Y	Y
Linkable code	Y	Y	N	Y
Multi-SECTIONS	N	Y	N	Y
INCLUDE binary files	N	N	N	Y
Assembly to memory	N	N	Y	Y
Stand alone assembler	Y	Y	N	Y
Section types	Y	N	N	Y
Debugger supplied	Y	N	Y	Y
Disassembler	Y	N	Y	Y
Multi-window	N	n/a	N	Y
Source-code viewing	N	n/a	Y	Y
Single-step	Y	n/a	Y	Y
Breakpoints	Y	n/a	Y	Y
Conditional breakpoints	N	n/a	N	Y
Full expression evaluator	N	n/a	N	Y
Multi-screen	Y	n/a	N	Y
Break into running programs	Y	n/a	N	Y
Disconnectable to disk	N	n/a	N	Y
Example program source code	Y	Y	N	Y
Operating System libraries	Y	Y	N	Y
Version	1.2	1.1	1	2.0

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# Figuring out the phenomenon

**Part two: William Poel reveals the financial secrets at Amstrad**

**A**lthough it's difficult, in this instalment, I'll try and separate Amstrad from the man most perceived as Mr Amstrad. It is unavoidable that the Amstrad story revolves around Alan Sugar, but there is another facet to the way the company grew and developed in its years up to us encounter with their first home computer.

Amstrad was founded in 1968, and went to the Stock Market in 1980. This is a pretty good amount of time for an organisation to have the head way with a turnover based on organic growth (i.e. not much borrowing) of £1m in 1980. Alan Sugar decided to cash in a few of the chips. There was, though, really no good reason to do so.

I guess the lure of the cash was hard to resist, as Alan Sugar has never been anyone's idea of a workaholic, and has always maintained a separate and very private life. But only around 20 per cent of the issued share capital was placed in the hands of the public. Alan Sugar kept hold of most of the stock for himself and only sold some 25 per cent in the first place, subsequently watered down to 50.66 per cent at the end of the 1984/5 year.

The popular view is that 35 per cent of a public company held in one place represents effective voting control, and only a fanatic would choose to vote against the wishes of the founder of an enterprise without the founder still in the enterprise. But it does happen occasionally.

## Slaughter the goose?

The current Amstrad accounts indicate that shares held by Alan Sugar (in his own name) account for some 24ths of a total of 555m paid up. This is only 45 per cent, so theoretically, the shareholders could now go up and slaughter the golden goose on a show of hands. This is unlikely, and one of the reasons for this gradual decline is reputed to be a desire by the City to see the guaranteed autonomy of Alan Sugar somewhat less guaranteed as evidence of his good faith in the way the City works. And pigs may fly.

Should Amstrad ever become the target of take-over munsters, many of the gamblers in the City would stand to make a fortune, as the company is languishing with probably the lowest value rating – based on historic performance and that wretched thing called “bank secret” – of any share in the world.

For many years, Alan Sugar did not extract his entitlement to dividends, and instead this possibly huge drain on the company's resources. This sort of magnanimity was a good way to pacify the shareholders who have historically received only a meagre dividend from Amstrad, settling instead for capital growth on the share price generally dictated on an annual basis.

So although the company may have earned 12p per share in 1985, the rest was distributed as a dividend, the rest being retained. And using this tactic, Amstrad has ploughed on necessary investment back into the business to fund its startling growth. Amstrad tops the league on turnover per employee, and return on capital employed over the past few years, and these are the best measures of entrepreneurial skill and enterprise of all. Any day can soon follow with shareholders' funds of billions just stuck in a building society.

In centralising the com-



**The Alan Sugar Story**

• Sugar: Notably worth £40,000,000

pany, it's also worth observing that Amstrad pays its managers [relatively] very little in the published accounts. A public company is obliged to list the “remuneration” of its higher paid employees in the published accounts, as it is interesting to ascertain in the 1978/9 period, Mr S. took home a meagre £10,000. Which although some of you may find hard to digest in absolute pounds for a company of the size and profitability of Amstrad, however, his technical side of the wedge from his shareholding was £40,000,000, so he isn't on his uppers just yet, John.

Other directors were paid in the region of £80-90K according to the UK accounts. Again, bolstered by share options, but otherwise rather modest by industrial standards.

## Flying in the teeth of wisdom

In fact, Amstrad has a well-earned reputation for paying its staff rather meekly, as Alan Sugar believes that wage increases in these are more useful as the soldiers in his organisation than profit-rewarded, talented (and highly mobile) white-collar. This philosophy is largely proven to be correct by results, but probably another of the reasons why the City regards him with suspicion, this is not the conventional wisdom.

This philosophy is also encouraged and endorsed by his fellow directors, and when he was once faced with the task of having a couple of new faces rates prices periodically close to those being paid to his existing others, it was able to construct a scheme to make the apparent salary being paid rather less, in order to keep the old guard happy.

And we are not talking unusually large sums of money here, John, because I was one of these new faces.

But this however, illustrates an observer can get or the impression of “sovereign class” to Amstrad and watching what many perceive as opportunities being wasted (the BBC is a perfect illustration, as near and yet so far off the mark), the fact remains

that on balance Amstrad delivers, and is now going so well with the measurable benefit of parallel operations around the world.

Amstrad can get a right all the time, and Mr S. does not want to have the same sort of mouthpiece that most conventional public enterprises can employ to apply the vanishing cream to the warts (it's called PR, the Amstrad press unfairly exposed as the bad news is always more interesting than good news). Particularly when the proportions are so heavily weighted in favour of bringing good news. \*

## Dialogue of the deaf

For someone who can change from 0 to 100% at the drop of a switch, The City is a red rag to Alan Sugar. His relationship between the two parties is at best distant. The City stickers regard Mr S's outfit as a phenomenon that they can't quite believe and certainly can't at all understand. From his penthouse in deepest Brixtonwood, Sugar is dismayed about the incessant prying of his firm's share price, and incredulous of its being as low – even when The City stickers fit it so tight.

For sure, Amstrad presents the occasional City talker to persuade the put-alarmed gamblers of the Square Mile that it really doesn't eat babies, kill miffs, drop nuclear bombs etc etc. Equally, Sugar has tried to raise his public image as appearing in the Department of Trade & Industry's Europe Open for Business campaign.

The effect is minimal. The City can't quite believe that the one man band Amstrad can continue being successful. The one man band himself can't quite believe that The City can get it all wrong so often.

## NEXT WEEK:

### He should be so lucky

Just as Alan Sugar's Amstrad was about to brush itself as a computer company with the CPC, so the rest of the market was variably set to note. Back in April '84, Sinclair, Commodore, Acorn and Atari were just months away from claimants which very nearly killed off all of them. The great computer adventure was just starting...

## Growing up in public

When a company goes public, part or all of its shares are offered on the open market, and the proceeds of the sale go straight through to the private shareholders. Most founders also manage some form of “rights” issue, where the number of new shares increased. If the existing shareholders choose not to buy these new shares, then the cash goes into the company's coffers for expansion and other beneficial City-spends.



# The power of Babel

**Peter Worlock probes the problems of incompatibility...**

**W**hy can't you take a program for the Commodore 64 and run it as an Amstrad CPC, or a Spectrum, or an Amiga? After all (goes the argument), you can play the same video tape in any make of video recorder and you can play any music album on any make of hi-fi!

Lots would be simpler without these considerations of compatibility. But, for now, exploring the situation, microfactions and software houses are currently making things worse. How many Amstrad ST owners have bought a program, only to find it won't work with their new machine? In the PC world, owners of newer machines with 3.5" disks are having to shop carefully since more software comes on 5.25" disks. More than a few Amiga owners must have bought *King of Chicago*, which discovered you can't run it without two disk drives.

But the reasons why you can't use software on different makes of computer are pretty technical, and fall into four categories:

## Processors

The processor is the heart and brain, or the command centre, of a computer. It is physically constructed to carry out a relatively small number of instructions that do little more than move numbers from one place in memory to another, or do simple arithmetic with those numbers - usually adding and subtracting, but also multiplying and dividing to cause advanced effects.

The first problem is that every different kind of processor only understands the few instructions it is built to understand, and every processor understands a different set of instructions.

This means that the 6502 chip in a Commodore 64 or BBC Micro cannot understand the instructions for a Z80 chip in a Spectrum or Amstrad CPC.

Both the 6502 and Z80 are 8-bit processors, that is, they handle information in chunks of eight bits, or one byte. Once you move up to the Amstrad ST and Commodore Amiga, there's another difference. These more recent processors are 16-bit chips - they handle information in chunks that are four times as large as those 8-bit machines.

However, that only explains why you can't use 6502 programs on a Z80-based machine, or on computers like the ST and Amiga which use the 68000 processor. It doesn't tell you why - since they share common protocols - you still see the same program on a Commodore 64 and BBC, or on a Spectrum, and as Amstrad PCW, or as an ST and Amiga.

The next level of difficulty lies in how the computer loads the program from tape or disk.

## Storage

Computer designers, being only human, like to think they've come up with the best way of doing something. Of course, they share a lot of the same ideas: disk is better than tape for example, but how you make use of these different techniques is up for grabs.

As Commodore's designers decided that the best way of handling tape, they chose to produce their own recorder, and build a special interface so that the computer could drive the recorder. This was a good idea, because, as I said, means you could use an ordinary audio cassette player with the CPC.

Spectrum's designers, on the other hand, decided it would be better if people could use their ordinary cassette players, so they built the Spectrum to that standard.

That's one reason why you can't load information from a Commodore tape into a Spectrum, and vice versa.

Another reason is that the designers came up with different - and incompatible - ways of recording the information on tape.

When everybody made the switch to floppy disks, the same old prejudices came along too, one may be best. So when Apple designed a disk drive for the Macintosh, the designers did something very clever: by speeding up or slowing down the rate at which the disk spins, there go more instructions as each disk - 400K or 800K - rather than



• Considerations of compatibility

the 300K or 520K that ST and Amiga owners get off identical disks. But in theory you can read a Mac disk on an Amiga, or an ST, or anything else. Everything is mutually exclusive.

It'd suppose we had a way to get a C64 program into a BBC, or an Amiga program into an ST. The instructions are in, and the processes understand the instructions. Why won't it work now?

## Memory maps

We've already seen that processors are built as little glorified post offices picking up numbers and spelling them in memory addresses. When you message in load a program for one machine into another one at #8 you'll find next the mail for one town, Amstrad, is at #8 in another town Amiga. The All of the addresses look the same, and the post offices won't exactly the same was.

So when the Amstrad post arrives in Amiga land,

the post office doesn't notice anything wrong and starts ringing the mail to the appropriate addresses. Only then do the problems start because although the two towns look identical, the addresses are occupied by different people in Amiga-ville it isn't. The mail goes to the right address but it reaches the wrong people.

In our real computers, the problems are identical. The 68000 processor in the Amiga will send the instructions for the Amiga and start sending numbers in the right memory addresses but in the ST they have a different function. The result is that the computer crashes instantly.

In other computers the problems can be exaggerated. For example, the Commodore 64 has 64K of memory, or just over 95,000 memory locations. The BBC has only 32K of memory, so if you try to run a 64 program on a BBC, the chances are the processor will be trying to put numbers into addresses that don't even exist.

## Special hardware

Finally, let's use the problem as its ultimate conclusion. Suppose you overcome the memory problem. Your program only uses instructions that are available in 9500 processors, and only addresses memory locations that exist and perform an identically function as both computers. Now why won't the program work?

It's a silly question, but it's a problem solved. Keen to use your program with as many computers as possible? At best, a single display ordinary text characters across the screen, but it certainly isn't going to produce dazzling graphics, or great music or even numbers out a hole.

As our demands for better software have increased, computers have had to become more complex. Faster processors, and more memory are only half of the story; memories like the Amiga use very powerful hardware to produce what would look simple. This special hardware has to map into the computer's memory, but it also requires special programming. Indeed, the chips that produce the Amiga graphics and sound are almost identical components in their own right.

This is the ultimate cause of incompatibility between different computers, and the reason why the competition with video recorders, or film, isn't ready yet. You can play the same video tape in different recorders but you only see the same screen. The reproduction might be a little bit better, the sound a trifle clearer, but it remains the same film.

With computers that isn't the case. When you play a game, Starfighter on your Spectrum might play differently to Starfighter on the ST. It's as though two different video recorders play different versions of the same movie: on one you get a cast of thousands, broadcasting plug-topping, and the full orchestra, on the other you get the three main characters, a falsetto black and white screen, and a solitary banjo playing the score.

What you lose in compatibility, you gain in product quality. ■

## Centronics • Parallel

## Technobabble

A weekly assault on computer jargon

• After #5252 has left, will the new most-common standard method for connecting your computer to other devices in the parallel port?

• RS232 is a serial interface. It transmits information one at a time, and another, serially. As its name suggests, the parallel interface transmits lots of information together side by side. Originally this made it faster, although it has been overtaken for speed by very fast serial interfaces. It remains much simpler, however.

• With RS232 there are a lot of variables - devices have to agree on how many bits of data make a single character, how errors will be notified,

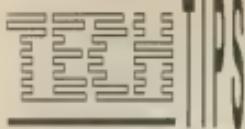
how fast the data is moving, and so on. Parallel needs none of this, just plug in the cable and away you go.

• Or not. Because like all computer standards, parallelism is nothing of the sort. Playing word's end, it's a genuine "almost standard": 95 lines out of 100 you can be confident that things will work as they should, but you can't ever be absolutely sure.

• There are some parallel printers that won't work with your Amstrad ST parallel printer port because the ST doesn't put out enough power to drive the interface of the printer end. Similarly, some parallel printer cables won't work with the Amiga because the Amiga puts out voltage where the cable doesn't expect it. The result is a dead cable.

• Furthermore, the industry tends to use Centronics and parallel as synonyms. They aren't. In fact, you rarely come across true Centronics interfaces any more, but if you do buy a genuine Centronics printer, it almost certainly won't work with your computer's parallel port. Worse, there's no way to tell by looking - you have to plug everything together and hope nothing dies.

• Always, the only way to be sure is to insert that your dealer proves that a computer, a printer and a cable will work without problems - before you hand over your money.



The place for your questions and suggestions

### Star choice

I am thinking of buying a Star LC-10 colour printer for my Amiga 4500, and need some help. Could you tell me what software the Star will work with (e.g. Workbench, Deluxe Paint) or will I need special software for it?

Also could you tell me roughly how a printer works because I know nothing about these devices.

**Simon Bailey, South Croydon, Surrey**

• The Star is a very good choice; it's not only reasonably fast in draft and graphics modes, but it can print a decent resolution (600 dpi) typeface too. It's also very good value for money, officially priced at around £250, but you can find it for as little as £180 if you shop around.

In general use, the LC-10 will work with any and all of your 4500 software – in both text and graphics modes, since it can emulate both Epson and IBM standards. Even colour isn't quite simple, since you only need to send a control code to the printer to switch colours.

However, colour graphics is not quite as straightforward. First of all, there's no suitable printer driver which allows your Amiga to control the LC-10's features. On your Workbench disk you'll find a variety of printer drivers – go into Preferences and select 'Change Printer' – and you can try several of these to see if they work.

A few months ago I bought myself a second-hand Atari 520STFM and the person who sold it to me said that it would run both old and new games without trouble. Is this so, and what is the difference between the old and new languages used in these computers?

Do you think I should sell my old ST and buy a new one? **J.G. Stokell, Seaham, Co. Durham**

• On all new STs, Atari substituted a new version of the operat-

ing system ROM (the built-in program that controls the way the ST works). This is very slightly different to the ROMs on older STs – including yours, Mr. Stokell – and will present some difficulties with software that bypasses the ROM routines.

However, this works to your advantage. People who buy new STs will encounter more problems than owners of older machines, since all software is written to work with the older models. So you don't have to worry, if you have any doubts, simply get an assurance from your dealer that he will exchange any programs that don't work properly.

The second part of your question, I assume, is about the newer version of Basic which is supplied with the ST. In this case, the change works against you. The original Basic supplied with older STs was a real dog, and Atari only got round to fixing some of the worst problems when it released the newer version free with new STs.

To answer your final question: no, there's no need to get rid of your existing ST, but if you want to program in Basic you'd be well-advised to buy a product like GFA Basic or one of the variants of HiSoft Power Basic, rather than try to use the free Atari Basic you should have got with your ST.

monitor the way the 1512h and 1640 do.

ing system ROM (the built-in program that controls the way the ST works). This is very slightly different to the ROMs on older

systems. You won't get an exact colour match, though, as general discussions of how different video cards would take up far more space than we've got room for here, but watch our Learning Centre section for 'Glimmers' – you'll find an introduction to monitor technology in the next few weeks.

switches changing to the appropriate mode to handshake with the monitor?

Third, the main reason for buying a multi-synch monitor is now to allow for future upgrading. Would a VGA card in an expansion slot with the Amstrad EGA card still allow VGA graphics on a multi-synch monitor?

**Roger Colbeck, Pinner, Middlesex**

• Technically, you can do most of what you suggest. However, I'd strongly recommend that you strip now.

These are a number of reasons. Video output ports generally put out a composite video signal which degrades the image and you certainly wouldn't be getting an EGA-quality picture. You'd have to fit some sort of adapter to your Amstrad's video interface to your multi-synch monitor. Later, when you switch to VGA, you have to disconnect the internal EGA controller, and that probably means cutting wires on the circuit board, and I suspect that's not something you'd be comfortable doing.

At things are considered, it'd be better to abandon the 1640 now, as you can probably get a decent price for it or the second hand market, and that will get you most of the way towards a genuinely expandable PC-compatible.

If you really think you'll want VGA soon, however, close look at the Amstrad PC2025, which has VGA as standard but doesn't let you in for your first

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Thanks for your article on PC graphics adapters (Express #2), but I'm not sure you answered my particular question because I have an Amstrad 1640 with mono monitor.

First, if I get hold of a 150-watt power supply to power the system unit, can I use any multi-synch monitor such as the NEC II or a Samsung CN4551 plugged into the video-out port?

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&lt;p

# VP Planner

*plus*

version 2

"I can't really see why anyone would buy Lotus 1-2-3 instead of the cheaper, compatible, more powerful and versatile VP-Planner Plus"

*America Professional Computing, September 1988*

Nor can we. Can you?

Comparison of VP-Planner Plus version 2, 1-2-3® rel 2.01 and Quattro®

Features	VP-Planner	1-2-3	Quattro
Worksheet size	100 columns x 100 rows	100 columns x 25 rows	100 columns x 25 rows
Stacks of dozen installations required	2 simple	4 complex	4 simple
2 line editor pop-up menu control system	YES	NO	NO
Undo/Redo commands, Entries, macros	YES	NO	NO
Transfers across files	YES	NO	YES
Background graphics, recalculations	YES	NO	NO
Print preview	YES	NO	NO
Add-in module for add-in programs	YES	NO	NO
Text editor	YES	NO	NO
Report generator	YES	NO	NO
Lotus 1-2-3 file conversion	YES	NO	NO
Data import/export commands	YES	NO	NO
Multi-dimensional database files	YES	NO	NO
DBASE file retrieval by field & record	YES	NO	NO
Software print	YES	NO	NO
Background print	YES	NO	NO
AutoCAD compatibility	YES	NO	NO
Range references with commands	YES	NO	NO
4 with command (16 total)	YES	NO	NO
Up to 8 windows at a worksheet	YES	NO	NO
Print preview from worksheet	YES	NO	NO
Number of simultaneously executable menus	10	25	25
Macro basic mode	YES	NO	NO
Edit, wordedit, wordedit	YES	NO	NO
Macros including range mode	YES	NO	NO
Matching functions	NO	NO	NO
Logical functions	NO	NO	NO
Financial functions	11	11	11
Statistical functions	16	16	16
Database functions	15	15	15
String functions	10	10	10
Date/time functions	14	15	15
Total functions	30	30	30
EGMA, CDA, Hercules supported	YES	YES	YES
VGA, ATI video supported	YES	NO	NO
Spread sheets			
Addition large	0.02	0.05	1
Addition small	0.00	1.00	2.24
Division large	0.02	0.00	*
Division small	0.00	1.00	2.02
Exponent large	0.01	0.00	*
Exponent small	0.00	0.00	0.00
Multiplication large	0.02	0.00	*
Multiplication small	0.00	1.00	2.23

At times on hundreds of a second. Large and small versions of four access driven worksheets were used. Large models contain more than 15 rows and 25 columns; small models contain 15 rows and 25 columns. Tests were conducted on an AT clone of 30MHz and no co-processor. Quattro could not load large models with 384K free after 2024. Lotus 1-2-3 accurate the values compare to the largest model only. VP-Planner Plus runs on IBM PCs and compatibles with 384K or more RAM.

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"More sense than money" - PC User March, 1988

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 (not all games available in all formats)



The Ultima series is one of the most successful computer role-playing games, and is now available on every computer that has sold in reasonable numbers in the US. Unfortunately, that rules out the Spectrum and Amstrad CPC26. Distributed by Microprose in Britain, the fifth Ultima episode has just been released.

All of the games are set against a common background which eventually develops into the kingdom of Britannia – and since this is a fantasy role-playing game, Britannia's problems are largely of the 'insolent' wo-and-warly sort.

The first three outings are fairly routine monster-bashing operations, though of a high standard, nonethe-

less. Ultima IV, however, broke new ground with Quest of the Avatar, a cosmic consciousness-raising trio in the spirit of Galahad and the search for the Holy Grail.

The graphics are less than brilliant, consisting of key characters wandering over a 2D map, but the size of each game, the magic and combat systems, and the wealth of background detail make them really get your imagination working.



From US Gold for: C64 £19.95s • Amiga £24.95s • Apple II £24.95s • PC £24.95s • Amstrad ST £24.95s



Definitely the one to watch, this is SSI's opening shot in a series of games based on the grand-daddy of role-playing, Advanced Dungeons & Dragons. SSI claims it sticks to the rules of AD&D putting six characters under your control, computer-controlled wandering characters and what must be the most sophisticated magic and combat system in gaming.

The storyline of the first episode in the familiar 'city in mortal terror' but SSI is promising that everything else will be strictly above average, with 3D perspective graphics, done-up portraits of characters and monsters, and loads of other good things.

## Pool of Radiance



From Electronic Arts for: C64 £19.95s • Amiga £24.95s • Amstrad ST £24.95ds • PC £24.95s  
 (not all games available in all formats)

The biggest failing of the Ultima series was the scrolling 2D map that presented your view of your characters' progress. Electronic Arts' Bard's Tale remedies that with a genuine 'out the eyeball' view of your surroundings.

The first game of the series is set in the troubled city of Skara Brae and you guide a party of six adventurers around the streets, dungeons and castles as they learn their trades of fighter, bard, thief and magic user.

There's a veritable 'cast of thousands' by way of monsters and enemy fighters, as well as a series of ever-more powerful levels of evil before the final confrontation with head-butt Mangar.

Well, not so final, because Bard's Tale II is now out on C64 and Amiga, and the third installment of



## The Bard's Tale

The saga has just been released for the 64. The good news is that you can use your original party in the subsequent games, so you really do get carried along with their well-being.

Bard's Tale can lay a strong claim to being the definitive fantasy role-playing game to date (although the joint US Gold/SSI venture with Advanced Dungeons & Dragons might challenge that). It may not have the graphic excellence of Milton's Dungeon Master, but it more than compensates with an enormous challenge that will have you playing for months, if not years.



# GAMES THAT TAKE OVER YOUR LIFE

BY STEPHEN HARRIS

It's not just the latest computer games that are taking over our lives. There's a whole new generation of us who are becoming slaves to the screen. Stephen Harris looks at the new addiction

There are arcade games, like Arkanoid, Space Invaders and Breakout, that have the joystick jocks in glassy-eyed ecstasy. There are the curiously plotted adventure games, like the Zork trilogy (Sage of Thieves), and Hitch-Hiker's Guide that leave players mumbbling in their sleep. Classics all.

But there are a select few games that go beyond mere entertainment, the games that threaten to submerge your own personality beneath that of your electronic alter ego. They are the games that let you moulds of your life as your hero-counterpart learns and grows - and more than you'd like, too.

What are the factors that combine to create these special games? First, the hero or heroine must have an identity that you can believe in; a persona that you, the player, can assume. Which immediately rules out all the arcade games - you can't make much of an emotional attachment with a bunch of pixels, no matter how beautifully drawn.

Second, the challenges that develop as the game progresses, through the acquisition of new skills or powers, or discovering new information. This qualification, for example, rules out an otherwise excellent product like Microprose's Gunship, which fails the first requirement. But Gunship has, we stress, the first and last piece of kit: it kills the geeks - and then it's simply a question of how well you can accomplish your mission.

Third, and perhaps most important, the story must go on, and the longer the better. There may be a definitive ending to the story - the destruction of some mighty opponent, the award of some ultimate accolade - but you'll be a long time getting there.

Finally, even if the journey, not the arrival, that makes these games so enjoyable, the striking against monstrous odds, the application of skill, the triumph of courage and daring, and the use of super-intellect.

Somewhere down the line, in the not-too-distant future, the descendants of these games will be the electronic entertainment of their day. When the science-fiction dream of direct sensory simulation takes over from humble displayed graphics and sound effects, these games will offer the ultimate entertainment: the chance to shrug off your 'real' life and just dive into a once exciting universe. And who knows - perhaps some players will prefer not to pack it out again.

In the meantime, here is the New Computer Express list of present-day Silicon dreams.

#### WHAT A LOAD OF RUBBISH

You disagree with the titles selected on this page? Then why not tell us what's kept you glued to the screen for months on end?

Write to: Addiction Corner, New Computer Express, 4 Green St, Bath BA1 1EJ.

## Elite

Probably the first, and still one of the best, 'other masters', Elite fulfils all the given qualifications. Basically a space trading game, what sets this above the competition is the open-ended plot - while your goal is to receive the ultimate accolade of Elite pilot, how you get there is up to you.

You can be a hard-working trader, opt for life on the edge as a bounty hunter, or try the lucrative but illegal - not to say dangerous - route of trading drugs, guns and slaves.

The gameplay is spiced up by the introduction of several missions outside the normal run of play - successfully completing these helps enormously in your quest. Coupled with the nicely devised story, a large element of 3D shooting up with fast-moving whitespace graphics justified on the PC version.

As your skill - both at trading and fighting - improves, so do the rewards with more powerful weapons, more potent defences, and extra cargo capacity. After months of play, you have a great deal invested in your character.



## Alternate Reality

As the title suggests, this offering from Datassoft takes you to the nth degree: in what other fantasy game might you get a job washing dishes in the local tavern, or choose between beef sandwiches and chicken broth from the menu?

Another long-playing series, the opening episode sends you down in the city of Rebec's Reach, stark naked, unarmed and with a severe cashflow crisis. So



you need a job, clothes, and weapons if you're going to survive, let alone establish your heroic credentials.

The second instalment, The Dungeon, is where you get down to serious monster-killing, and further added modules are promised. This game, then, is truly an 'alternate reality'.

Unfortunately, the game doesn't quite live up to the promise: the graphics are fine (in the style of Bard's Tale) but there's no animation, and lots of disk access slow down the gameplay to barely tolerable levels in the 64 version.

However, the 16-bit implementations are fine, and if you want a game that could occupy the rest of your life, this is the one.



## Starflight



BLINDBRIGHT ARTS

One for PC-owners only, and for that reason it rarely figures in discussions of the great games. But take no mistake, Starflight is a classic.

It begins as a more-or-less routine trading game but quickly develops into a massive odyssey of interstellar exploration and detection. You lead a crew of six aboard your starship, mining for minerals, collecting exotic Melvians and historical artifacts with the aim of winning money to develop up your ship. This is no trivial task because there are literally hundreds of planets, all completely mapped.

But it soon becomes apparent that there is a more pressing task: to discover the story of the mysterious Amelians, and uncover the cause of a star-busting force which is gradually making all planets in the galaxy uninhabitable.

There are other intelligent races in the game, and to succeed you'll have to fight with some, but more often you need to establish peaceful relations and talk to them. That gives you the necessary hints and clues to complete the game.

Starflight uses the PC's four-colour lores display mode, so the graphics aren't brilliant, but there are some wonderful effects and the storyline, and excellent gameplay more than make up for that.

From Spectrum £14.95s • C64 £14.95s • Amiga £12.95s

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MOHD	614.70	644.70	654.70	672.81	727.81	731.30	731.30
1640	648.00	681.00	694.00	726.00	786.00	795.00	795.00
CGA	614.70	644.70	654.70	672.81	727.81	731.30	731.30
1640	701.00	722.00	744.00	786.00	820.00	856.00	856.00
EGA	744.55	784.55	798.00	820.00	866.00	896.00	896.00
1640	789.75	820.00	836.00	868.00	912.00	942.00	942.00
2086	878.00	912.00	912.00	936.00	974.00	1004.00	1004.00
MOHD	665.00	700.00	700.00	736.00	786.00	814.00	814.00
2086	717.30	752.00	756.00	784.00	824.00	858.00	858.00
CD	625.00	656.00	671.00	704.00	744.00	774.00	774.00
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# SPEX

## The pitching and rolling road

*Antonino Michagno*, a whetstone theorist calling themselves this week, surely deserves an award for being the most asthmatic soft ware house around.

### Ad-stounding!

I'm writing this week's column in a state of shock. When entering the family room to catch up with events in Brookside Close, I found myself watching an advert for the Z.T. To my eyes, despite me or Barron Sugar Head starting to push a computer with the Satellite tag on it.

For those who don't know quality programmers, the advert basically features a friendly-looking teenager playing ancient and totally uninteresting games on his +3. It included several close-ups of the disc drive and phrases like "Advanced Sinclair Technology" and the claim of £129 even if you can afford to have the Earth's last computer add never have been known for their quality. Remember Commodore's elegant advert? Me neither.

First, they achieve the impossible and manage to create the numerous amalgamations of arcade names Asteroids, Ms. Pac-Man and racetrack use if the definitive New Computer Express review is anything to go by. Not only do they start from scratch, they are now considering conversions of Galaxy Force, instantly Asteroids in space, with added music, and the hydraulic tendril in there you cannot move too.

You'll have to wait until issue 98 to see how it turns out, but, as the monetum you need always have a go at reviewing your next own hydraulically controlled creation plus 1 working up liquid bottles and levels amounts of sticky-fuck plastic.

### Saturn points

Ever since the Z80 was released and people the world over got to grips with the RAM pack module, there's been a healthy machine at WFM headquarters. That's probably why I was more than a little surprised to hear Sinclair have decided or dropped the +3 and +2 from their shelves, again and a little bit of pain since +3 Amstrads price has not surprised. The computer that will be replacing our beloved Speccy is the ST Range!



\* The Spectrum +3 - disappearing, with the +2, from SPEX, New Computer Express, 4 Queen Street, B43 9AS, 1E2.

Rabbi Ahwae

was signed for release by Parrot before they finished, wouldn't want that horrids f\*\*\* up. Roy of the Beavers is the name of the game, stop.

It's up to Roy to save the day once again as this time the Melchior charity 5 a day team has been kidnapped. Will there be Roy has to solve a terrible arcade adventure using all his charm and charisma to survive? I think you get the idea.

Having hopefully recovered Roy's escapades you can then take part in the football playing part. It's 'You-a-type' very convenient for the programme! I enjoyed and the black and white graphics can hardly be said to emulate the inferior red and yellow strip of the console-bound Melchior Power.

Much better and almost worth printing them because in issue 1 of +3 Review Sinclair from Good Masters. This was pretty well out of sight as it's best move, but my edited highlights would go something like this. Cool stuff shows about the graphics. Better than the seven London and Executive games but not a patch on Wastebasket Four quid too expensive, it won't save you as such. 66 pence per handover the moon either.

### And now for something completely different...

The Computer Monitor Diary 1989 from Sinclair is a product which really needs to be advertised under the slogan for the computer user who has everything.

It's a decidedly old-school computerised diary with most of the features found in paper counterparts like horoscopes, calendar and birthday. There are also travel guides, long lists, weather forecasts and Sinclair's probably the most useful feature is the Multi Sys Electronic System. OMERSI simply signs the egg sign and necessary of you and you're given a bolting over! Hooray, just what we always wanted.

### Saturn points

Last May it was inevitable once you've managed to get to grips with the initial control method.

Here are some handily-prepared tips for level one:

- the best unarmed fighting method is in keep looking and then occasionally punch;
- don't be too brave. It's often better to run around the enemy rather than face him off that's important life lesson;
- collect a corp and the objects you need will then when you encounter a location;
- punch a panel on the wall to open a trapdoor on the first screen;
- the key opens the garage in the park;
- weapons just waiting in the cockpit up include the staff, lying with sticks on top of a wall, a machete split in two each part is one of the weapons, and therefore stay local to the wall.

Two plastic seal are located in a box in the park. Watch out for police巡迴.

### Speck up!

New Computer Express' plus edition review didn't actually note Speck with you mad yet.

Take this as an experienced plus for more. To really say I am spoilt for choice if they're indeed, in the latest systems and pieces of new Amiga tape and prices are especially welcome. The fact is, I don't get much time to play anything thoroughly enough for really indepth material. Funnily enough and independent software will get just as much coverage as these great cockerels providing they are good enough. So come on you Specks get reading - you'll make us all envious very happy!

Send everything to me at SPEX, New Computer Express, 4 Queen Street, B43 9AS, 1E2.

Rabbi Ahwae

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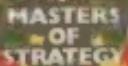
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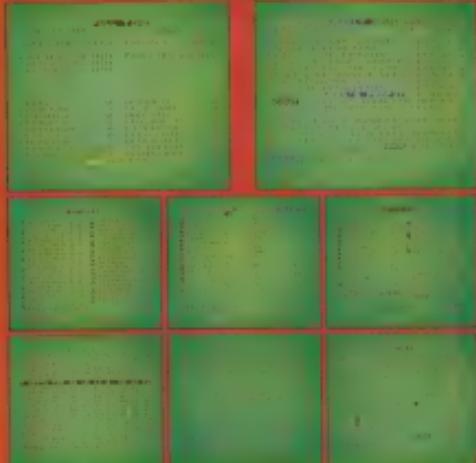
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# YOUR FORMAT

## MACHINE-SPECIFICS

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To make this issue as flexible as possible I have included some codes to enable change to 80 based on and off.

### Try running

POKER 4929.348 (This will keep the poker from moving off the data between 150-348)  
POKE 8812.152 (This will stop the program from reading the data and allow you to move the cursor around using the 'Y' button POKE 6458.054)

POKE 4916.56 (Will give you the normal display screen)  
POKE 4916.56 (Will give you the binary file picture display)

### Show report

Second Software have been busy in recent months writing their most impressive series game - Mini Soccer (Microprose). We received the only news we've had since screening had brought the press who have rung me in Atlanta. The file can dead yet!

Just some of the features are listed below:  
• Fast revision and playback to capture these glorious goals

• All kinds of weather - sun, clouds and lightning - which indicate spinners hitting the pitch plus all those lovely overlay species to give instant resolution.

Stable Software's team of developers are Chris Yaray, Jim Ware and Martin Galvin - the person responsible for much of the music at Game Devs' Michel and Steve Copley. You'd be inspired to know that not only is Martin Galvin a master of segways, but the studio of Stable Software's own Chris Yaray and Jim Ware play a big role. They've put together a rather impressive music track which contains their countryrock. The tape was being sold at their stand at the exhibition. The range of these new software titles is patchy at the moment because they need to be played on a 3.5" media and there aren't many of these available. There were informed as that their next game will be named after Foundation.

Also exhibiting at the show was Birmingham-based Megaplay which now selling the newly launched ST40 disk drive.

One of you may remember us the second issue we talked about the ST40 disk drive which was rumoured to have cost £200 on a 3.5" disk - in comparison with the Amiga. Well, we are pleased to announce that the disk drive has now been launched in the UK. It's believed to be highly competitive, as the operating system is within the drive. The price ranges from £175. For further information contact Megaplay's new address - 43-44 Millbrook Road East, Southampton. Or phone them on 0703 338544.

### Public Domain

Here's a program with getting hold of - a public domain game called Halle, by Andrew Lonsley (Klass 1982). This is not part of the usual PD software, as it's a complete game programme of itself. It's great to find out that there are many more commercial-quality public domain games for the Amiga than we ever thought. Halle has a basic in accuse dialogue where you can design up to 20 levels. It's unusual, many difficult variations of Maths to knock down.

The sourcecode can be found on CompuServe by going to Realec Designs directory at "RELAX". But if you're not a member of CompuServe, I'm sure that fantastic game will soon be in a 64 public-domain library.

Well, we end on a slightly note, with the release of Double Dragon by MidHouse Games. The game was originally due for release at the Christmas time - could it be in the Christmas two-ender?

That's all for this week - remember, you only have 7 days to wait and not a month before the next issue.

1st & 3rd



**Flipping marvellous**

Satellite world, such as integer, photomag or number code, during coding. A graphics plus split screen adventure. Corruption works really well on the PCP, the sort of adventure even the savviest will get hooked on. Will you get them before they get you? Will your integrity remain intact? I hope so. Corruption is £3.95 from Bookshop on 05 260 8608.

**The gift of speech**

In Japan you can get alarm clocks which wake you up with a sprightly Japanese woman's voice saying 'It is now time to get up, etc and go to work'. These blighties are incomparably exciting stuff. It is a new time to get up, etc, etc. Oddly enough it has come before a great export hit.

**Amaze your friends**

How to get rid of PCW who show you their PCW at parties: type at the Alt prompt [ENTER] followed by Z then [ENTER]. The display becomes one line deep, more cramping to look in than a PC, an Apple Macintosh's paper screen, even a ZX81. You can restore it by typing [ZXTN]-[ALT]-[RETURN], but you don't have to tell them that.

Want a happy home? Well, now you can, with our latest ATM (Automatic Telephone) card or a speech synthesiser module which will work on your PCX. Now the BBC's engineers can actually speak in the event your system goes wrong, glibly and give a very different angle to the message. That's ours on track 5 sector 5 - Betty (apple) or COTTON (apple).

Seemingly aimed - particularly for the disabled - but even for those of us who speak too much already there are some places of serious application. Details from TM on 0333 760430.

Bob Askey

**Corruption on disk**

A world of legends, immediate success, beautiful young people with delicious robes. An enormous disk retailing - yes, it's life in the City.



Now, Richard, have brought out an adventure for the PCW based on rotavite happenings in the



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**Cometh the hour...**

Time Prove it Outsoft has finally succeeded to produce here, user and vdu - with my help - in developing a VT100 emulation addition to its communications software in the Z8 Microstar and Starbyte (December 1986).

This new feature will improve things for those who use services such as BT Gold and can also take advantage of the improved screen handling and bit graphics.

Now whilst it's quite steady a logical extension to this package, as BT Gold has been a long time coming. These things take time, obviously enough. They have been bedded in slowly over many years and I am sure it is a stroke of genius to include such a feature. I am sure that the public will be glad to see the back of it. Let's hope it's worth the wait.

**Late year line-up**

Just one day before Christmas, PGOL will be releasing a new batch of products for the QL, and the Thix whilst we're at it.

Weighting in at £39.95 each

C-Port, which enables you to convert your SuperVICVIC program to a VIC Thimble, it can be cascaded on the CL or bunged over to a PC for whatever.

At the bottom end comes TimeTidy, a useful package for a server which converts QWIC files to ASCII text. Also ready for ShareWorKing or use in the Solaris.

Last in the year will be HQ-10 by Hardmark & Finder at £15. PGOL claim that the tool provides a valuable debugging enquiry facility which takes you through the directory-structure structure. Finder seeks out those past forgotten files buried in sub-sub-directories depths.

PGOL can be reached on 021 260 2211. Paul Connell

**Chipping in price rises**

D-Ram chip shortages have hit the whole industry throughout the year, with the likes of Amstrad and Atari bowing their tales.

But now, just some of the bigger players are beginning to see some effect at the end of the tunnel, so comes news of the effect on the £1 market. And it's a question of needing to move very fast if you don't want to get caught out.

Essentially, the suppliers of QL expansion boards have been placed in a quandary with the continuing chip shortages. There are now rumours of some vicious price hikes in the offing. Few are as yet in a position to say how much prices will be increasing, but there is not that much doubt that rises will indeed have to occur.

Why this will be happening is easy to explain. The boards they are selling consist almost entirely of chips. Considering that the suppliers are up against all-comers - many of them seriously large concerns - I suspect they have a point.

The effect is that it will make the second-hand market look very interesting indeed. Those looking for a bargain will have to move very fast. You have been warned!

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### Shock, horror!

Open warfare in the classroom? Computer makes schoolwork an odd business! Computer teachers seem to be getting the last laugh to describe the current situation in educational computing.

Apart from course material teachers also edit software in this country with the BBC's 128 and Amstrad's range of computers, but at the moment they have to Apple and IBM help, going back to their roots.

### Beeb book

This week's little bit of inside information about your BBC course courtesy of the *Master Operating Systems Guide from BBC Micro*.

This book is a rapid reference work for anyone wishing to develop programs for the Master series computers. It contains full details of new features, example programs, a mass of detailed information and intriguing minutiae.

For example, you can put comments into your batch files at ROSTP up, simply by typing `!#text`, followed by a carriage return. This makes them much more understandable, as it is so easy to write a batch file, and then forget what on earth it is all for later on!

Such is the bitterness of the matter that Amstrad's MP, Steven Colman, in a recent speech condemned the advertising of RML, and advised that Acorn were condoning

referring the matter to the Advertising Standards Authority.

Acorn, of course, are never shy to make claims themselves, and Colman went on to say the demand for Master computers would supply at present. That sounds impressive until you realise that there's some doubt as to whether Acorn are actually making any Master notebooks at all!

However, sales are strong at the moment probably because schools are now buying computers by the hundred, rather than in ones and twos. In this area Acorn have the range out of a massive installed user base, and are sure to pace price considerably lower than the opposition. That together with the Beeb network means they practically have the price and popularity factor levels up.

However education is not the only market of interest together, and it is clear that Amstrad's notebooks are competing well with the rest of the market. The price of the new and aggressive program, and advertising, both road computers like RML and large ones such as Apple are going to establish footholds in the further and higher education, with a view to gradually taking dominance.

### Software subsidies

Number of donations can also be found in the *MicroWorld* interview earlier, where Jeffries' Mike Mason was complaining about the DfES' policy on subsidies.

Apparently a 5% old software surcharge for the IBM Standard will get a grant, whereas new software will receive no surcharge at all. He and his team here have arranged a meeting with Labour spokesman Bryan Gould, with a view to raising the matter in the House of Commons.

Andrew Brown



### Software shortage?

It's been a good year. Why is it that we in the UK are not being supplied with software readily available in Europe?

For example, *8 Typewriter* is available in Japan, and supplied on ROM in the MSX 1 and 2. This game is available on every major format in the US but MSX. I would have thought that as an MSX version had already been coded it would have been easy for Electronic Design to supply it alongside the others.

Also, take a game like *Pete's a doo* written by Michael Beckett Miller. This is a game from the Spanish software house Deltaplano, and is stated to have sold 20,000 MSX copies.

In Spain, "the game is popular, surely someone could send a few copies over to the UK for us to purchase ourselves?"

Maybe new releases are slow, new better releases are slow, although there are quite a few thousand MSX users in the UK, when a game is released they may never actually buy it. (A quick search: MSX users in the UK, and unless more people are willing to part with their hard-earned cash - who are, would still buy my software?) So, to copy.

### Kosmos club blues

Any members of the Kosmos Software Club out there who are wondering why you haven't

received your monthly newsletter - it's because it's no longer a monthly.

I've been reliably informed that it will now be published every three months. Your next copy should be available in December.

### Show success

The last Alternative Micro Show has just been held in Birmingham, and MSX Central, a MSX-based user group, were there to do the MSX honour.

Myself as the show's official DJ, I informed the staff, although the show started at a leisurely pace, it picked up speed in the afternoon. In fact the MSX stand drew quite a crowd, with particular interest being shown in Philips WCR3000 MSX computers.

### Spain's no. 1

Want to know what's no. 1 in the Spanish MSX charts this month? Well I'm going to tell you anyway - *Temperatura*, from a company called Topo Soft. New Topo Soft are, I believe, going to start distributing software in the UK, so maybe this game may shortly reach our shores. If I could read Spanish I could tell you what this game is about...

This exhibition is the companion with a built-in digital camcorder, Camcorder recorders are also available at this exhibition for around £300. Even at this price several colour video cameras I've seen that aren't even a fraction of the above to touch MSX, but then they are not bad.

Plenty of new software was displayed and sold at the MSX stand, and several game titles from Japan were in evidence, so all an all MSX Central had a very good show.

### Final reminder

Dont forget the MSX Tech Show at the Midlands Meeting Place, Macclesfield on December 10th. Phone 0898 674655 for details.

Keith Reed

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All the above QL software is produced by Sector software. Ask for our full guide/pricelist of our QL software.

### BULLETIN BOARD

We are now running a Verbatim bulletin board on 0772 454328 8pm til 9am weekdays and 10am weekends which is mainly QL specific but includes a Z88 section and is set up to include an Amiga section.

We are at the moment writing Amiga to Z88 file transfer software and Amiga to QL software. If you are interested in either of these please contact us for more details.

In stock too many products to mention in any detail, we have a regular four page advert in QL News each month, so please give us a ring or give us a ring for car boot guide price and price list. The new Z88 Microboard is due to Farnell on December 10th in the usual Industrial Buildings, London. We also stock 4000, 5000, 6000, 7000, 8000 and 8800.

A good lending section is now available on the Bulletin Board, as good as can be ordered by Motive.

### NORTHERN SINCLAIR SHOW

Due to a lack of previous shows in the North or Shetland magazines Sector Software are to be organising a Northern Sinclair show around Preston in Lancashire (incl 26 or 29 MS) in about March, anyone who would like to be mailed with details or any Spectrums, C64, 286 computers or peripheral suppliers please contact us for details.

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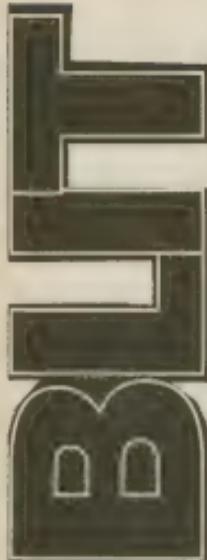
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*PSsst!*

A last look at the computer scene by cynical old hack, Private I

## Mad Max and the Dame

"It's not true. Robert Maxwell hasn't bought us. It hasn't happened. It won't happen and there's no reason for it to happen. We're very happy where we are, thank you," said the dame from Telecomsoft.

You heard the lady.

I'd been told that the contract was out for Telecomsoft and that Big Robert and

da boys were the ones gunning for it.

It could have been my big break. Mad Max flashes his monster chessboard and the Telecom crew bite the bullet. But no. The Queen Bee Paula Byrne says not. She's happy living with the upturn mob at Telecomsoft.

So I call my contacts. "Hey, who's the biggest with the Telecom contract? Just



• Robert "Mad Max" Maxwell: Are you for sale?



• Paula 'The Dame' Byrne: No

gimme a break. Just gimme a name. I need the story."

The trial went to Virgin. Branson's crewed them to Virgin. They took out the east-side gang Masterbiscuit just the other week. Maybe they now got the hots for Telecom. But my man says no comment. No comment? Whaddya mean with your no comment? I need that like a need a hole in the head.

Things were looking desperate - like a great gap on page two type desperate.

"Well give me the big top!" call the biggest name in contract software - he'll know. Tell me, just tell me. So he begins, and I feel the rush of blood like I never felt since I heard how Big Al did for Cambridge Cliche. Makes your blood run colder than crushed ice-cubes. The guy sure knows his stuff - but the guy knows

nothing about the Telecom heat. Maybe he's the one gunning for them. (But I got no takers on that one.)

So it's back to Mad Max. I nail one of his men and hit him hard. You've taken out Telecom, right? Wrong. 24 card wrong. He sure runs a neat operation. All trials lead to Big Robert, but all trials go dead. It just don't stack up. Someone's gotta squeal.

Maybe it's the Lady Paula. Maybe she's planning an inside job to buy herself out of Corporationville.

But it's the big zero again. Everything means less than zero. I'm on a one way ticket to the Machine Specifics if I can't get this one to stand up.

So I gotta go with Max. He's the man. He's buying Telecomsoft and you read it here first. •

**Next week's issue, jam packed with goodies, goes on sale on Thursday December 8th. Don't miss it!**

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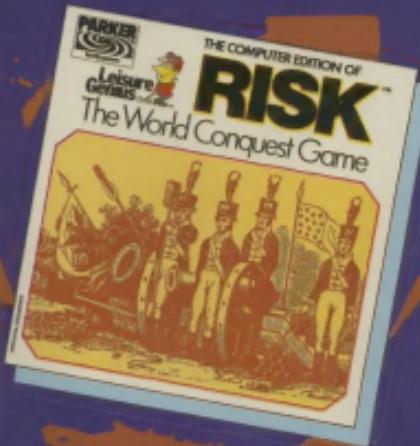
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